

**Subpart DDDDD--National Emission Standards for Hazardous Air  
Pollutants for Major Sources: Industrial, Commercial, and  
Institutional Boilers and Process Heaters**

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~~2010, and Before [INSERT THE DATE THIS FINAL RULE IS PUBLISHED IN THE  
FEDERAL REGISTER]~~

**What this Subpart Covers**

§63.7480 What is the purpose of this subpart?

This subpart establishes national emission limitations and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. ~~—~~This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards.

§63.7485 Am I subject to this subpart?

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in §63.7575 that is located at, or is part of, a major source of HAP, except as specified in §63.7491. ~~—~~For purposes of this subpart, a major source of HAP is as defined in §63.2, except that for oil and natural gas production facilities, a major source of HAP is as defined in §63.761 (subpart HH of this part, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities).

§63.7490 What is the affected source of this subpart?

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(a) — This subpart applies to new, reconstructed, and existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) — The affected source of this subpart is the collection at a major source of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory as defined in §63.7575.

(2) — The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or process heater, as defined in §63.7575, located at a major source.

(b) — A boiler or process heater is new if you commence construction of the boiler or process heater after June 4, 2010, and you meet the applicability criteria at the time you commence construction.

(c) — A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in §63.2, you commence reconstruction after June 4, 2010, and you meet the applicability criteria at the time you commence reconstruction.

(d) — A boiler or process heater is existing if it is not new or reconstructed.

§63.7491 Are any boilers or process heaters not subject to this subpart?

The types of boilers and process heaters listed in paragraphs (a) through (~~nn~~) of this section are not subject to this subpart.

(a) — An electric utility steam generating unit.

(b) — A recovery boiler or furnace covered by subpart MM of this part.

(c) — A boiler or process heater that is used specifically for research and development. — This does not include units that provide heat or steam to a process at a research and development facility.

(d) — A hot water heater as defined in this subpart.

(e) — A refining kettle covered by subpart X of this part.

(f) — An ethylene cracking furnace covered by subpart YY of this part.

(g) — Blast furnace stoves as described in EPA-453/R-01-005 (incorporated by reference, see §63.14).

(h) — Any boiler or process heater that is part of the affected source subject to another subpart of this part (i.e., another National Emission Standards for Hazardous Air Pollutants in 40 CFR part 63).

(i)– Any boiler or process heater that is used as a control device to comply with another subpart of this part, or part 60 or part 61 of this chapter provided that at least 50 percent of the heat input to the boiler or process heater is provided by the gas stream that is regulated under another subpart.

(j)– Temporary boilers as defined in this subpart.

(k) –Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

(l)– Any boiler specifically listed as an affected source in any standard(s) established under section 129 of the Clean Air Act.

(m) — ~~A boiler required to have a permit under section 3005 of the Solid Waste Disposal Act or unit that burns hazardous waste covered by subpart~~Subpart EEE of this part ~~(e.g., hazardous waste).~~ A unit that is exempt from Subpart EEE as specified in §63.1200(b) is not covered by Subpart EEE.

(n) Residential boilers ~~), as defined in this subpart.~~

§63.7495 When do I have to comply with this subpart?

(a)– If you have a new or reconstructed boiler or process heater, you must comply with this subpart by [INSERT THE DATE 60 DAYS AFTER ~~THIS~~THE FINAL RULE IS PUBLISHED IN THE FEDERAL

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REGISTER] or upon startup of your boiler or process heater,  
whichever is later.

(b)– If you have an existing boiler or process heater, you  
must comply with this subpart no later than [INSERT THE DATE 3  
YEARS AFTER PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL  
REGISTER~~+~~], except as provided in §63.6(i).

(c)– If you have an area source that increases its  
emissions or its potential to emit such that it becomes a major  
source of HAP, paragraphs (c)(1) and (2) of this section apply  
to you.

(1)– Any new or reconstructed boiler or process heater at  
the existing source must be in compliance with this subpart upon  
startup.

(2)– Any existing boiler or process heater at the existing  
source must be in compliance with this subpart within 3 years  
after the source becomes a major source.

(d)– You must meet the notification requirements in  
§63.7545 according to the schedule in §63.7545 and in subpart A  
of this part.– Some of the notifications must be submitted  
before you are required to comply with the emission limits and  
work practice standards in this subpart.

(e) — If you own or operate an industrial, commercial, or institutional boiler or process heater and would be subject to this subpart except for the exemption in §63.7491(1) for commercial and industrial solid waste incineration units covered by part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart on the effective date of the switch from waste to fuel.

**Emission Limitations and Work Practice Standards**

§63.7499 What are the subcategories of boilers and process heaters?

The subcategories of boilers and process heaters, as defined in §63.7575 are:

(a) — Pulverized coal/solid fossil fuel units.

(b) — Stokers designed to burn coal/solid fossil fuel.

(c) — Fluidized bed units designed to burn coal/solid fossil fuel.

(d) — Stokers /sloped grate/other units designed to burn kiln dried biomass/bio-based ~~solids~~solids.

(e) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solids.

(f) Fluidized bed units designed to burn biomass/bio-based solid.



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~~(f)-g)~~ Suspension burners/~~Dutch Ovens designed to burn biomass/bio-based solid.~~

~~(g) Fuel Cells~~ designed to burn biomass/bio-based solid.

(h) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(i) Fuel cells designed to burn biomass/bio-based solid.

(j) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

~~(i)-k)~~ Units designed to burn solid fuel.

~~(i)-l)~~ Units designed to burn liquid fuel.

~~(j)-m)~~ Units designed to burn heavy liquid fuel.

(n) Units designed to burn light liquid fuel.

(o) Units designed to burn liquid fuel in non-continental ~~States~~states or territories.

~~(k)-p)~~ Units designed to burn natural gas, refinery gas or other gas 1 fuels.

~~(l)-q)~~ Units designed to burn gas 2 (other) gases.

~~(m)-r)~~ Metal process furnaces.

~~(n)-s)~~ Limited-use boilers and process heaters.

§63.7500 What emission limitations, work practice standards, and operating limits must I meet?

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(a)— You must meet the requirements in paragraphs (a)(1) through (3) of this section, except as provided in paragraphs (b~~+~~), (c), and (ed) of this section.— You must meet these requirements at all times, except as provided in paragraph (e) of this section.

(1)— You must meet each emission limit and work practice standard in Tables 1 through 3, ~~and 12~~ to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under §63.7522. ~~If your affected source is a new or reconstructed affected source that commenced construction or reconstruction after June 4, 2010, and before [INSERT THE DATE 60 DAYS AFTER THIS FINAL RULE IS PUBLISHED IN THE FEDERAL REGISTER], you may comply with the emission limits in Table 1 or 12 to this subpart until [INSERT THE DATE THREE YEARS AFTER PUBLICATION OF THIS FINAL RULE IN THE FEDERAL REGISTER]. On and after [INSERT THE DATE THREE YEARS AFTER PUBLICATION OF THIS FINAL RULE IN THE FEDERAL REGISTER], you must comply with the emission limits in Table 1 to this subpart. The output-based emission limits (i.e., in units of pounds per million Btu of steam output) in Tables 1 or 2 to this subpart are an alternative applicable only to boilers that generate steam. The output-based emission limits~~

are not applicable to process heaters that do not generate steam.

(2)— You must meet each operating limit in Table 4 to this subpart that applies to your boiler or process heater.— If you use a control device or combination of control devices not covered in Table 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the EPA Administrator for approval of alternative monitoring under §63.8(f).

(3)— At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.— Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

(b)— As provided in §63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

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(c) — Limited-use boilers and process heaters must complete a biennial tune-up as specified in §63.7540. — They are not subject to the emission limits in Tables 1 and 2 to this subpart, the annual tune-up requirement in Table 3 to this subpart, or the operating limits in Table 4 to this subpart. Major sources that have limited-use boilers and process heaters must complete an energy assessment as specified in Table 3 to this subpart if the source has other existing boilers subject to this subpart that are not limited-use boilers.

(d) Boilers and process heaters with a heat input capacity of less than 5 million Btu per hour in the units designed to burn natural gas, refinery gas or other gas 1 fuels subcategory; units designed to burn gas 2 (other) fuels subcategory, or units designed to burn light liquid fuels subcategory must complete a tune-up every 5 years as specified in §63.7540.

(e) These standards apply at all times, except during periods of startup and shutdown, during which time you must comply only with Table 3 to this subpart.

§63.7501 How can I assert an affirmative defense if I exceed an emission limitations during a malfunction?

In response to an action to enforce the emission limitations and operating limits set forth in §63.7500 you may

assert an affirmative defense to a claim for civil penalties for exceeding such standards that are caused by malfunction, as defined at §63.2. ~~—~~Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. ~~—~~The affirmative defense shall not be available for claims for injunctive relief.

(a)~~—~~ To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) ~~—~~The excess emissions:

(i)~~—~~ Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner, and

(ii)~~—~~ Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii)~~—~~ Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv)~~—~~ Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

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(2)– Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded.– Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3)– The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions; and

(4)– If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5)– All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and

(6)– All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7)– All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and

(8)– At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and

(9)— A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue.— The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) —Notification.— The owner or operator of the facility experiencing an exceedance of its emission ~~limitat~~limitation(s) during a malfunction shall notify the Administrator by telephone or facsimile (fax) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction.— The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial ~~oeurrenee~~occurrence of the exceedance of the standard in §63.7500 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section.— The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before

the expiration of the 45 day period. ~~—Until a request for an~~  
extension has been approved by the Administrator, the owner or  
operator is subject to the requirement to submit such report  
within 45 days of the initial occurrence of the exceedance.

### **General Compliance Requirements**

§63.7505 What are my general requirements for complying with  
this subpart?

(a) ~~—~~ You must be in compliance with the emission limits, work practice standards, and operating limits in this subpart. These limits apply to you at all times ~~—~~ except for the periods noted in §63.7500(e).

(b) ~~—~~[Reserved]

(c) ~~—~~ You must demonstrate compliance with all applicable emission limits using performance testing, fuel analysis, or continuous monitoring systems (CMS), including a continuous emission monitoring system (CEMS) ~~—or~~, continuous opacity monitoring system (COMS), continuous parameter monitoring system (CPMS), or particulate matter continuous parameter monitoring system (PM CPMS), where applicable. ~~—~~ You may demonstrate compliance with the applicable emission limit for hydrogen chloride ~~—or~~, mercury, or total selected metals using fuel analysis if the emission rate calculated according to



§63.7530(c) is less than the applicable emission limit. (For gaseous fuels, you may not use fuel analyses to comply with the total selected metals alternative standard or the hydrogen chloride standard.) Otherwise, you must demonstrate compliance for hydrogen chloride~~or~~, mercury, or total selected metals using performance testing, if subject to an applicable emission limit listed in Table 1~~7~~, or 2, ~~or 12~~ to this subpart.

(d)~~—~~ If you demonstrate compliance with any applicable emission limit through performance testing and subsequent compliance with operating limits (including the use of ~~continuous parameter monitoring system~~CPMS), or with a CEMS, or COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section for the use of any CEMS, COMS, or ~~continuous parameter monitoring system~~.CPMS. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).

(1)~~—~~ For each CMS required in this section (including CEMS, COMS, or ~~continuous parameter monitoring system~~CPMS), you must develop, and submit to the delegated authority for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control

elements outlined in §63.8(d) and the elements described in  
paragraphs (d)(1)(i) through (iii) of this section.— You must  
submit this site-specific monitoring plan, if requested, at  
least 60 days before your initial performance evaluation of your  
CMS. —This requirement to develop and submit a site specific  
monitoring plan does not apply to affected sources with existing  
monitoring plans that apply to CEMS and COMS prepared under  
appendix B to part 60 of this chapter and that meet the  
requirements of §63.7525. Using the process described in  
§63.8(f)(4), you may request approval of alternative monitoring  
system quality assurance and quality control procedures in place  
of those specified in this paragraph and, if approved, include  
the alternatives in your site-specific monitoring plan.

(i)— Installation of the CMS sampling probe or other  
interface at a measurement location relative to each affected  
process unit such that the measurement is representative of  
control of the exhaust emissions (e.g., on or downstream of the  
last control device);

(ii)— Performance and equipment specifications for the  
sample interface, the pollutant concentration or parametric  
signal analyzer, and the data collection and reduction systems;  
and

(iii)— Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift).

(2)— In your site-specific monitoring plan, you must also address paragraphs (d) (2) (i) through (iii) of this section.

(i)— Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c) (1) (ii), (c) (3), and (c) (4) (ii);

(ii)— Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(iii)— Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c) (as applicable in Table 10 to this subpart), (e) (1), and (e) (2) (i).

(3)— You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4)— You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

### **Testing, Fuel Analyses, and Initial Compliance Requirements**

§63.7510 What are my initial compliance requirements and by what date must I conduct them?

(a) —For affected sources that are required to or elect to demonstrate compliance with any of the applicable emission

limits in Tables 1 or 2 of this subpart through performance testing, your initial compliance requirements include

~~conducting all the following:~~

(1) Conduct performance tests according to §63.7520 and Table 5 to this subpart, ~~conducting.~~

(2) Conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521 and Table 6

to this subpart, ~~establishing operating limits according to §63.7530 and Table 7 to~~ except as specified in paragraphs

(a)(2)(i) through (iii) of this subpart, and conducting CMS performance evaluations according to §63.7525. section.

(i) For affected sources that burn a single type of fuel, you are ~~exempted from the compliance requirements of~~

~~conducting~~ not required to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to

§63.7521 and Table 6 to this subpart.— For purposes of this

subpart, units that use a supplemental fuel only for startup,

unit shutdown, and transient flame stability purposes still

qualify as affected sources that burn a single type of fuel, and

the supplemental fuel is not subject to the fuel analysis

requirements under §63.7521 and Table 6 to this subpart.

(ii) When natural gas, refinery gas, other gas 1 fuels are co-fired with other fuels, you are not required to conduct a fuel analysis of those fuels according to §63.7521 and Table 6 to this subpart. If gaseous fuels other than natural gas, refinery gas, or other gas 1 fuels are co-fired with other fuels and those gaseous fuels are subject to another subpart of this part, you are not required to conduct a fuel analysis of those fuels according to §63.7521 and Table 6 to this subpart.

(iii) You are not required to conduct a chlorine fuel analysis for any gaseous fuels. You must still conduct a fuel analysis for mercury on gaseous fuels unless the fuel is exempted in paragraphs (a) (2) (i) through (iii) of this section.

(3) Establish operating limits according to §63.7530 and Table 7 to this subpart.

(4) Conduct CMS performance evaluations according to §63.7525.

(b)— For affected sources that elect to demonstrate compliance with the applicable emission limits in Tables 1 or 2 of this subpart for hydrogen chloride~~or~~, mercury or total selected metals through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to §63.7521

and Table 6 to this subpart and establish operating limits according to §63.7530 and Table 8 to this subpart. The fuels described in paragraph (a)(2)(i) through (iii) of this section are exempt from these fuel analysis and operating limit requirements. Boilers and process heaters that use a CEMS for mercury or hydrogen chloride are exempt from the performance testing and operating limit requirements specified in paragraph (a) of this section.

(c)– If your boiler or process heater is subject to a carbon monoxide limit, your initial compliance demonstration for carbon monoxide is to conduct a performance test for carbon monoxide according to Table 5 to this subpart. ~~Your initial compliance demonstration for carbon monoxide also includes conducting, or conduct~~ a performance evaluation of your continuous ~~oxygen-carbon monoxide~~ monitor, if applicable, according to §63.7525(a). Boilers and process heaters that use a continuous emission monitoring system for carbon monoxide are exempt from the initial carbon monoxide performance testing and oxygen concentration operating limit requirements specified in paragraph (a) of this section.

(d)– If your boiler or process heater subject to a PM limit has an average annual heat input ~~capacityrate~~ greater than 250

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MMBtu per hour ~~and combusts coal, biomass, from solid fossil fuel~~and/or residual oil, your initial compliance demonstration for PM is to conduct a performance ~~evaluation of your continuous emission monitoring system for PM according to~~test in accordance with §63.7520 and Table 5 to §63.7525(b). ~~Boilers~~this subpart. Owners of boilers and process heaters ~~that use a continuous emission monitoring system for PM are exempt from who elect to comply with the performance testing and operating~~alternative total selected metals limit requirements specified in paragraph (a) of this section. are not required to install a CPMS.

(e) ~~For~~ existing affected sources, you must ~~demonstrate~~complete the initial compliance demonstration, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the compliance date that is specified for your source in §63.7495 and according to the applicable provisions in §63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in §63.7540(a)(10)(i) through (vi) and complete the one-time energy assessment specified in Table 3 to this subpart, both no later than the compliance date specified in §63.7495.

(f) ~~If your~~For new or reconstructed affected ~~source~~commenced construction or reconstruction after June 4,

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~~2010~~sources, you must ~~demonstrate~~complete the initial compliance demonstration with the emission limits no later than [INSERT THE DATE 240 DAYS AFTER PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER] or within 180 days after startup of the source, whichever is later. ~~If~~

(g) For new or reconstructed affected sources, you are demonstrating~~must demonstrate initial~~ compliance with ~~an~~ emission limit~~the applicable work practice standards~~ in Table ~~123~~ to this subpart no later than the compliance date that is ~~less stringent than (that is, higher than) the applicable emission limits~~specified in Table 1~~\$63.7595 and according to this subpart, you must demonstrate compliance with the applicable emission limit in Table 1 no later than [INSERT THE DATE 3 YEARS AND 180 DAYS AFTER PUBLICATION OF THIS FINAL RULE IN THE FEDERAL REGISTER].~~provisions in §63.7(a)(2). You must conduct the initial tune-up within 365 days after startup of the source. Thereafter, you are required to complete the applicable annual, biennial, or 5-year tune-up as specified in §63.7540(a).

~~(g)~~h) For affected sources that ceased burning solid waste consistent with §63.7495(e) and for which your initial compliance date has passed, you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel



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switch.— If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations for this subpart before you commence or recommence combustion of solid waste.

§63.7515 When must I conduct subsequent performance tests, fuel analyses, or tune-ups?

(a)— You must conduct all applicable performance tests according to §63.7520 on an annual basis, except ~~those for dioxin/furan emissions, unless you follow the requirements listed~~as specified in paragraphs (b) through (e) of this section.— Annual performance tests must be completed no more than 13 months after the previous performance test, ~~unless you follow the requirements listed~~except as specified in paragraphs (b) through (e) of this section.—~~Annual performance testing for dioxin/furan emissions is not required after the initial compliance demonstration.~~

(b)— You can conduct performance tests less often for a given pollutant if your performance tests for the pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit~~7~~, (or, in limited instances as specified in Tables 1 and 2 to this subpart, at or below the emission limit) and if there are no changes in the

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operation of the affected source or air pollution control equipment that could increase emissions.— In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. —You must conduct a performance test during the third year and no more than 37 months after the previous performance test. —If you elect to demonstrate compliance using emission averaging under §63.7522, you must continue to conduct performance tests annually.

(c)— If your boiler or process heater continues to meet the emission limit for the pollutant, you may choose to conduct performance tests for the pollutant every third year if your emissions are at or below 75 percent of the emission limit~~7~~ (or, in limited instances as specified in Tables 1 and 2 to this subpart, at or below the emission limit) and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance test must be conducted no more than 37 months after the previous performance test.— If you elect to demonstrate compliance using emission averaging under §63.7522, you must continue to conduct performance tests annually. —The requirement to test at maximum chloride input level is waived unless the stack test is conducted for ~~HCl~~. hydrogen chloride. The

requirement to test at maximum ~~Hg~~mercury input level is waived unless the stack test is conducted for ~~Hg~~mercury. The requirement to test at maximum total selected metals input level is waived unless the stack test is conducted for total selected metals.

(d)— If a performance test shows emissions exceeded the emission limit or 75 percent of the emission limit (as specified in Tables 1 and 2) for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period ~~show compliance.~~meet the required level (either 75 percent of the emission or the emission limit, as specified in Tables 1 and 2).

(e)— If you are required to meet an applicable tune-up work practice standard, you must conduct an annual ~~or~~, biennial, or 5-year performance tune-up according to §63.7540(a) (10) ~~and~~, (a) (11), or (a) (12), respectively.— Each annual tune-up specified in §63.7540(a) (10) must be no more than 13 months after the previous tune-up. —Each biennial tune-up specified in §63.7540(a) (11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in §63.7540(a) (12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected

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source, the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source.

(f)– If you demonstrate compliance with the mercury~~or,~~ hydrogen chloride, or total selected metals based on fuel analysis, you must conduct a monthly fuel analysis according to §63.7521 for each type of fuel burned that is subject to an emission limit in Table 1, ~~2,~~ or ~~12 of 2~~ to this subpart.– If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in §63.7540.– If 12 consecutive monthly fuel analyses demonstrate compliance, you may request decreased fuel analysis frequency by applying to the EPA Administrator for approval of alternative monitoring under §63.8(f).

(g)– You must report the results of performance tests and the associated initial fuel analyses within 90 days after the completion of the performance tests.– This report must also verify that the operating limits for your affected source have not changed or provide documentation of revised operating ~~parameters~~ limits established according to §63.7530 and Table 7

to this subpart, as applicable.— The reports for all subsequent performance tests must include all applicable information required in §63.7550.

§63.7520 What stack tests and procedures must I use?

(a)— You must conduct all performance tests according to §63.7(c), (d), (f), and (h).— You must also develop a site-specific stack test plan according to the requirements in §63.7(c).— You shall conduct all performance tests under such conditions as the Administrator specifies to you based on representative performance of the affected source for the period being tested. —Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests.

(b)— You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c)— You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of chlorine and mercury, and total selected metals if you are opting to comply with the total selected metals alternative standard, and you must demonstrate

initial compliance and establish your operating limits based on these performance tests.— These requirements could result in the need to conduct more than one performance test.— Following each performance test and until the next performance test, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(d)— You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3).— Each test run must comply with the minimum applicable sampling times or volumes specified in Tables 1, ~~2~~, and ~~122~~ to this subpart.

(e)— To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 at 40 CFR part 60, appendix A-7 of this chapter to convert the measured particulate matter concentrations, the measured hydrogen chloride concentrations, the measured mercury concentrations, and the measured ~~mercury~~total selected metals concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.

§63.7521 What fuel analyses, fuel specification, and procedures must I use?

(a) ~~For solid, and liquid, and gas 2 (other)~~ fuels, you must conduct fuel analyses for chloride and mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. For solid fuels, you must also conduct fuel analyses for total selected metals if you are opting to comply with the total selected metals alternative standard. For gas 2 (other) fuels, you must conduct fuel analysis for mercury according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable. (For gaseous fuels, you may not use fuel analyses to comply with the total selected metals alternative standard or the hydrogen chloride standard.) For purposes of complying with this section, a fuel gas system that consists of multiple gaseous fuels collected and mixed with each other is considered a single fuel type and sampling and analysis is only required on the combined fuel gas system that will feed the boiler or process heater. Sampling and analysis of the individual gaseous streams prior to combining is not required. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. ~~You are~~ required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury ~~and,~~ hydrogen

chloride, or total selected metals in Tables 1, and 2, ~~or 12~~ to this subpart. Gaseous and liquid fuels are exempt from the sampling requirements in paragraphs (c) and (d) of this section and Table 6 of this subpart.

(b)– You must develop and submit a site-specific fuel monitoring plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b) (1) and (2) of this section, if you are required to conduct fuel analyses as specified in §63.7510.

(1)– You must submit the fuel analysis plan no later than 60 days before the date that you intend to conduct ~~an~~the initial compliance demonstration described in §63.7510.

(2)– You must include the information contained in paragraphs (b) (2) (i) through (vi) of this section in your fuel analysis plan.

(i)– The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) –For each anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) –For each anticipated fuel type, a detailed description of the sample location and specific procedures to be



used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section.— Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) —For each anticipated fuel type, the analytical methods from Table 6, with the expected minimum detection levels, to be used for the measurement of chlorine or mercury.

(v)— If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use.— Methods in Table 6 shall be used until the requested alternative is approved.

(vi)— If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c)— At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section, or use an automated sampling mechanism that provides representative composite fuel

samples for each fuel type that includes both coarse and fine material.

(1)– If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i)– Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample.— You must collect all the material (fines and coarse) in the full cross-section.— You must transfer the sample to a clean plastic bag.

(ii)– Each composite sample will consist of a minimum of three samples collected at approximately equal ~~one~~-hour intervals during the testing period for sampling during performance stack testing. For monthly sampling, each composite sample shall be collected at approximately equal 10-day intervals during the month.

(2)– If sampling from a fuel pile or truck, you must collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i)– For each composite sample, you must select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii)– At each sampling site, you must dig into the pile to a uniform depth of approximately 18 inches.– You must insert a clean ~~flat square~~ shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling ~~;~~  
use the same shovel to collect all samples.

(iii)– You must transfer all samples to a clean plastic bag for further processing.

(d)– You must prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1)– You must thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) –You must break large sample pieces (e.g., larger than 3 inches~~)~~ into smaller sizes.

(3)– You must make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4)– You must separate one of the quarter samples as the first subset.

(5)– If this subset is too large for grinding, you must repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) –You must grind the sample in a mill.

(7)— You must use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis.— If the quarter sample is too large, subdivide it further using the same procedure.

(e)— You must determine the concentration of pollutants in the fuel (mercury and/or chlorine and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart—, for use in Equations 7, 8, and 9 of this subpart.

(f)— To demonstrate that a gaseous fuel other than natural gas or refinery gas qualifies as an other gas 1 fuel, as defined in §63.7575, you must conduct a fuel specification analyses for ~~hydrogen sulfide and~~ mercury according to the procedures in paragraphs (g) through (i) of this section and Table 6 to this subpart, as applicable—, except as specified in paragraph (f)(1) through (3) of this section.

(1) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for ~~gaseous fuels other than~~ natural gas or refinery gas ~~that are complying with the limits for units designed to burn gas 2 (other) fuels.~~

~~(g)~~ (2) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section for gaseous fuels that are subject to another subpart of this part.

(3) You are not required to conduct the fuel specification analyses in paragraphs (g) through (i) of this section on gaseous fuels for units that are complying with the limits for units designed to burn gas 2 (other) fuels.

(g) You must develop and submit a site-specific fuel analysis plan for other gas 1 fuels to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (g) (1) and (2) of this section.

(1)– You must submit the fuel analysis plan no later than 60 days before the date that you intend to conduct ~~an~~the initial compliance demonstration described in §63.7510.

(2)– You must include the information contained in paragraphs (g) (2) (i) through (vi) of this section in your fuel analysis plan.

(i)– The identification of all gaseous fuel types other than ~~natural gas or refinery gas~~those exempted from fuel specification analysis under (f) (1) through (3) of this section anticipated to be burned in each boiler or process heater.

(ii) ~~For each~~ anticipated fuel type, the notification of whether you or a fuel supplier will be conducting the fuel specification analysis.

(iii) ~~For each~~ anticipated fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the samples if your procedures are different from the sampling methods contained in Table 6 ~~to this subpart~~. to this subpart. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types. ~~If~~ multiple boilers or process heaters are fueled by a common fuel stream it is permissible to conduct a single gas specification at the common point of gas distribution.

(iv) ~~For each~~ anticipated fuel type, the analytical methods from Table 6 to this subpart, with the expected minimum detection levels, to be used for the measurement of hydrogen sulfide and ~~mercury~~.

(v) ~~If~~ you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that you are proposing to use. ~~Methods in Table 6~~ to

this subpart shall be used until the requested alternative is approved.

(vi)— If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(h)— You must obtain a single fuel sample for each ~~other gas 1~~ fuel type according to the sampling procedures listed in Table 6 for fuel specification of gaseous fuels.

(i)— You must determine the concentration in the fuel of mercury, in units of microgram per cubic meter, ~~and of hydrogen sulfide, in units of parts per million, by volume,~~ dry basis, of each sample for each gas 1 fuel type according to the procedures in Table 6 to this subpart.

§63.7522 Can I use emissions averaging to comply with this subpart?

(a)— As an alternative to meeting the requirements of §63.7500 for particulate matter, hydrogen chloride, or mercury on a boiler or process heater-specific basis, if you have more than one existing boiler or process heater in any subcategory located at your facility, you may demonstrate compliance by emissions averaging, if your averaged emissions are not more

than 90 percent of the applicable emission limit, according to the procedures in this section.— You may not include new boilers or process heaters in an emissions average.

(b)— For a group of two or more existing boilers or process heaters in the same subcategory that each vent to a separate stack, you may average particulate matter, hydrogen chloride, or mercury emissions among existing units to demonstrate compliance with the limits in Table 2 to this subpart as specified in paragraph (b)(1) through (3) of this section, if you satisfy the requirements in paragraphs (c), (d), (e), (f), and (g) of this section.

(1) You may not include in an average units using a CEMS or PM CPMS for demonstrating compliance, even if the use of a CEMS or PM CPMS is optional.

(2) For Hg and HCl, averaging is allowed as follows:

(i) You may average among units in any of the solid fuel subcategories.

(ii) You may average among units in any of the liquid fuel subcategories.

(iii) You may average among units in a subcategory of units designed to burn gas 2 (other) fuels.



(iv) You may not average across the liquid, solid fuel, and gas 2 (other) subcategories.

(3) For particulate matter, averaging is only allowed between units within each of the following combustor level subcategories and you may not average across subcategories:

(i) Pulverized coal/solid fossil fuel units.

(ii) Stokers designed to burn coal/solid fossil fuel.

(iii) Fluidized bed units designed to burn coal/solid fossil fuel.

(iv) Stokers/sloped grate/other units designed to burn kiln dried biomass/bio-based solids.

(v) Stokers/sloped grate/other units designed to burn wet biomass/bio-based solids.

(vi) Fluidized bed units designed to burn biomass/bio-based solid.

(vii) Suspension burners designed to burn biomass/bio-based solid.

(viii) Dutch ovens/pile burners designed to burn biomass/bio-based solid.

(ix) Fuel Cells designed to burn biomass/bio-based solid.

(x) Hybrid suspension/grate burners designed to burn wet biomass/bio-based solid.

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(xi) Units designed to burn heavy liquid fuel.

(xii) Units designed to burn light liquid fuel.

(xiii) Units designed to burn liquid fuel in non-continental states or territories.

(xiv) Units designed to burn gas 2 (other) gases.

(c)– For each existing boiler or process heater in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on [INSERT THE DATE 60 DAYS AFTER PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER] or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on [INSERT THE DATE 60 DAYS AFTER PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER].

(d)– The averaged emissions rate from the existing boilers and process heaters participating in the emissions averaging option must be in compliance with the limits in Table 2 to this subpart at all times following the compliance date specified in §63.7495.

(e)– You must demonstrate initial compliance according to paragraph (e)(1) or (2) of this section using the maximum rated

heat input capacity or maximum steam generation capacity of each unit and the results of the initial performance tests or fuel analysis.

(1) ~~You must use Equation 41a or 1b of this section to demonstrate that the particulate matter, hydrogen chloride, or mercury emissions from all existing units participating in the emissions averaging option for that pollutant do not exceed the emission limits in Table 2 to this subpart. Use Equation 1a if you are complying with the emission limits on a heat input basis and use Equation 1b if you are complying with the emission limits on a steam generation (output) basis.~~

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n Er \times Hm \div \sum_{i=1}^n Hm \quad (\text{Eq. } \del{41a})$$

Where:

AveWeightedEmissions = Average weighted emissions for particulate matter, hydrogen chloride, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the initial compliance demonstration) of particulate matter, hydrogen chloride, or mercury from unit, i, in units of pounds per million Btu of heat input. ~~Determine the emission rate for particulate matter, hydrogen chloride, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for hydrogen chloride or mercury using the applicable equation in §63.7530(c).~~

Hm = Maximum rated heat input capacity of unit, i, in units of million Btu per hour.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

$$\text{AveWeightedEmissions} = 1.1 \times \sum_{i=1}^n E_r \times S_o \div \sum_{i=1}^n S_o \quad (\text{Eq. 1b})$$

Where:

AveWeightedEmissions = Average weighted emissions for particulate matter, hydrogen chloride, or mercury, in units of pounds per million Btu of steam output.

E<sub>r</sub> = Emission rate (as determined during the initial compliance demonstration) of particulate matter, hydrogen chloride, or mercury from unit, i, in units of pounds per million Btu of steam output. Determine the emission rate for particulate matter, hydrogen chloride, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for hydrogen chloride or mercury using the applicable equation in §63.7530(c). If you are taking credit for energy conservation measures from a unit according to §63.7533, use the adjusted emission level for that unit, E<sub>adj</sub>, determined according to §63.7533 for that unit.

S<sub>o</sub> = Maximum steam output capacity of unit, i, in units of million Btu per hour, as defined in §63.7575.

n = Number of units participating in the emissions averaging option.

1.1 = Required discount factor.

(2)– If you are not capable of determining the maximum rated heat input capacity of one or more boilers that generate steam, you may use Equation 2 of this section as an alternative to using Equation ~~4~~1a of this section to demonstrate that the particulate matter, hydrogen chloride, or mercury emissions from

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all existing units participating in the emissions averaging option do not exceed the emission limits for that pollutant in Table 2 to this subpart that are in pounds per million Btu of heat input.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n Er \times Sm \times Cfi \div \sum_{i=1}^n Sm \times Cfi \quad (\text{Eq. 2})$$

Where:

AveWeightedEmissions = Average weighted emission level for PM, hydrogen chloride, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as determined during the most recent compliance demonstration) of particulate matter, hydrogen chloride, or mercury from unit, i, in units of pounds per million Btu of heat input. ~~Determine the emission rate for particulate matter, hydrogen chloride, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for hydrogen chloride or mercury using the applicable equation in §63.7530(c).~~

Sm = Maximum steam generation capacity by unit, i, in units of pounds per hour.

Cfi = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for unit, i.

1.1 = Required discount factor.

(f) ~~After the initial compliance demonstration described in paragraph (e) of this section, you must demonstrate compliance on a monthly basis determined at the end of every month (12 times per year) according to paragraphs (f)(1) through~~

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(3) of this section.— The first monthly period begins on the compliance date specified in §63.7495.

(1)— For each calendar month, you must use Equation ~~3a or~~ 3b of this section to calculate the average weighted emission rate for that month—~~using. Use Equation 3a and~~ the actual heat input for the month for each existing unit participating in the emissions averaging option if you are complying with emission limits on a heat input basis. Use Equation 3b and the actual steam generation for the month if you are complying with the emission limits on a steam generation (output) basis.

$$AveWeightedEmissions = 1.1 \times \sum_{i=1}^n Er \times Hb \div \sum_{i=1}^n Hb \quad (\text{Eq. } \del{3a} \text{a})$$

Where:

AveWeightedEmissions = Average weighted emission level for particulate matter, hydrogen chloride, or mercury, in units of pounds per million Btu— of heat input, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of particulate matter, hydrogen chloride, or mercury from unit, i, in units of pounds per million Btu of heat input. —Determine the emission rate for particulate matter, hydrogen chloride, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for hydrogen chloride or mercury using the applicable equation in §63.7530(c).

Hb = The heat input for that calendar month to unit, i, in units of million Btu.

$n$  = Number of units participating in the emissions averaging option.

$1.1$  = Required discount factor.

$$\text{AveWeightedEmissions} = 1.1 \times \sum_{i=1}^n Er \times So \div \sum_{i=1}^n So \quad (\text{Eq. 3b})$$

Where:

AveWeightedEmissions = Average weighted emission level for particulate matter, hydrogen chloride, or mercury, in units of pounds per million Btu of steam output, for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration) of particulate matter, hydrogen chloride, or mercury from unit,  $i$ , in units of pounds per million Btu of steam output. Determine the emission rate for particulate matter, hydrogen chloride, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for hydrogen chloride or mercury using the applicable equation in §63.7530(c). If you are taking credit for energy conservation measures from a unit according to §63.7533, use the adjusted emission level for that unit,  $E_{adj}$ , determined according to §63.7533 for that unit.

So = The steam output for that calendar month from unit,  $i$ , in units of million Btu, as defined in §63.7575.

$n$  = Number of units participating in the emissions averaging option.

$1.1$  = Required discount factor.

(2)– If you are not capable of monitoring heat input, you may use Equation 4 of this section as an alternative to using Equation ~~33a~~ of this section to calculate the average weighted

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emission rate using the actual steam generation from the boilers participating in the emissions averaging option.

$$AveWeightedEmissions = 1.1 \times \frac{\sum_{i=1}^n Er \times Sa \times Cfi}{\sum_{i=1}^n Sa \times Cfi} \quad (\text{Eq. 4})$$

Where:

AveWeightedEmissions = average weighted emission level for PM, hydrogen chloride, or mercury, in units of pounds per million Btu of heat input for that calendar month.

Er = Emission rate (as determined during the most recent compliance demonstration of particulate matter, hydrogen chloride, or mercury from unit, i, in units of pounds per million Btu of heat input.— Determine the emission rate for particulate matter, hydrogen chloride, or mercury by performance testing according to Table 5 to this subpart, or by fuel analysis for hydrogen chloride or mercury using the applicable equation in §63.7530(c).

Sa = Actual steam generation for that calendar month by boiler, i, in units of pounds.

Cfi = Conversion factor, as calculated during the most recent compliance test, in units of million Btu of heat input per pounds of steam generated for boiler, i.

1.1 = Required discount factor.

(3)— Until 12 monthly weighted average emission rates have been accumulated, calculate and report only the average weighted emission rate determined under paragraph (f)(1) or (2) of this section for each calendar month.— After 12 monthly weighted average emission rates have been accumulated, for each



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subsequent calendar month, use Equation 5 of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current calendar month and the previous 11 calendar months.

$$E_{avg} = \sum_{i=1}^n E_{Ri} \div 12 \quad (\text{Eq. 5})$$

Where:

$E_{avg}$  = 12-month rolling average emission rate, (pounds per million Btu heat input)

$E_{Ri}$  = Monthly weighted average, for calendar month "i" (pounds per million Btu heat input), as calculated by paragraph (f)(1) or (2) of this section.

(g)– You must develop, and submit to the applicable delegated authority for review and approval, an implementation plan for emission averaging according to the following procedures and requirements in paragraphs (g)(1) through (4) of this section.

(1)– You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2)– You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your

implementation plan for all emission sources included in an emissions average:

(i)– The identification of all existing boilers and process heaters in the averaging group, including for each either the applicable HAP emission level or the control technology installed as of [INSERT THE DATE 60 DAYS AFTER PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER] and the date on which you are requesting emission averaging to commence;

(ii)– The process parameter (heat input or steam generated) that will be monitored for each averaging group;

(iii)– The specific control technology or pollution prevention measure to be used for each emission boiler or process heater in the averaging group and the date of its installation or application.– If the pollution prevention measure reduces or eliminates emissions from multiple boilers or process heaters, the owner or operator must identify each boiler or process heater;

(iv)– The test plan for the measurement of particulate matter, hydrogen chloride, or mercury emissions in accordance with the requirements in §63.7520;

(v)– The operating parameters to be monitored for each control system or device consistent with §63.7500 and Table 4,

and a description of how the operating limits will be determined;

(vi)— If you request to monitor an alternative operating parameter pursuant to §63.7525, you must also include:

(A)— A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B)— A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable delegated authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii)— A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating load conditions.— Following each compliance demonstration and until the next compliance demonstration, you must comply with the operating limit for operating load conditions specified in Table 4 to this subpart.

(3)— The delegated authority shall review and approve or disapprove the plan according to the following criteria:

(i) — Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) — Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) — The applicable delegated authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) — Any averaging between emissions of differing pollutants or between differing sources; or

(ii) — The inclusion of any emission source other than an existing unit in the same subcategory.

(h) — For a group of two or more existing affected units, each of which vents through a single common stack, you may average particulate matter, hydrogen chloride, or mercury emissions to demonstrate compliance with the limits for that pollutant in Table 2 to this subpart if you satisfy the requirements in paragraph (i) or (j) of this section.

(i) — For a group of two or more existing units in the same subcategory, each of which vents through a common emissions control system to a common stack, that does not receive emissions from units in other subcategories or categories, you may treat such averaging group as a single existing unit for

purposes of this subpart and comply with the requirements of this subpart as if the group were a single unit.

(j)– For all other groups of units subject to the common stack requirements of paragraph (h) of this section, including situations where the exhaust of affected units are each individually controlled and then sent to a common stack, the owner or operator may elect to:

(1)– Conduct performance tests according to procedures specified in §63.7520 in the common stack if affected units from other subcategories vent to the common stack.— The emission limits that the group must comply with are determined by the use of Equation 6 of this section.

$$En = \sum_{i=1}^n ELi \times Hi \div \sum_{i=1}^n Hi \quad (\text{Eq. 6})$$

Where:

En = HAP emission limit, pounds per million British thermal units (lb/MMBtu), parts per million (ppm), or nanograms per dry standard cubic meter (ng/dscm).

ELi = Appropriate emission limit from Table 2 to this subpart for unit i, in units of lb/MMBtu, ppm or ng/dscm.

Hi = Heat input from unit i, MMBtu.

(2)– Conduct performance tests according to procedures specified in §63.7520 in the common stack.— If affected units

and non-affected units vent to the common stack, the non-affected units must be shut down or vented to a different stack during the performance test unless the facility determines to demonstrate compliance with the non-affected units venting to the stack; and

(3)– Meet the applicable operating limit specified in §63.7540 and Table 8 to this subpart for each emissions control system (except that, if each unit venting to the common stack has an applicable opacity operating limit, then a single continuous opacity monitoring system may be located in the common stack instead of in each duct to the common stack).

(k)– The common stack of a group of two or more existing boilers or process heaters in the same subcategory subject to paragraph (h) of this section may be treated as a separate stack for purposes of paragraph (b) of this section and included in an emissions averaging group subject to paragraph (b) of this section.

§63.7525 What are my monitoring, installation, operation, and maintenance requirements?

(a)– If your boiler or process heater is subject to a carbon monoxide emission limit in Table 1~~–2~~, or ~~122~~ to this subpart, you must install, operate, and maintain an oxygen

analyzer system as defined in §63.7575, or a carbon monoxide continuous ~~oxygen monitor~~emission monitoring system (CO CEMS) according to the procedures in paragraphs (a) (1) through (~~6~~10) of this section.

(1) The oxygen analyzer system or the CO CEMS must be installed by the compliance date specified in §63.7495. ~~The oxygen~~ If a CO CEMS is used, the carbon monoxide level shall be monitored at the outlet of the boiler or process heater.

~~(1) Each CEMS for oxygen (O<sub>2</sub> CEMS)~~ 2) You must operate the oxygen trim system with the oxygen level set at the minimum percent oxygen by volume that is established as the operating limit for oxygen according to Table 4 to this subpart.

(3) Each CO CEMS must be installed, operated, and maintained according to the applicable procedures under Performance Specification 34, 4A, or 4B at 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to §63.7505(d).

~~(2) You must conduct a performance evaluation of each O<sub>2</sub> CEMS according to the requirements in §63.8(e) and according to Performance Specification 3 at 40 CFR part 60, appendix B.~~

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~~(3) Each O<sub>2</sub> CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.~~

~~(4) The O<sub>2</sub> CEMS data must be reduced as specified in §63.8(g)(2).~~

~~(5) You must calculate and record 12-hour block average concentrations for each operating day.~~

~~(6) For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, excluding data collected during periods when the monitoring system malfunctions or is out of control, during associated repairs, and during required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments). Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system malfunctions or is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Periods when data are unavailable because of required quality assurance or control activities (including, as applicable, calibration checks and~~



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~~required zero and span adjustments) do not constitute monitoring deviations.~~

~~(b) If your boiler or process heater has a heat input capacity of greater than 250 MMBtu per hour and combusts coal, biomass, or residual oil, you must install, certify, maintain, and operate a CEMS measuring PM emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (b) (1) through (5) of this section.~~

~~(1) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in §63.7540(a) (9).~~

~~(2)~~ (4) For a new unit, the initial performance evaluation shall be completed no later than [INSERT THE DATE 240 DAYS AFTER PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER] or 180 days after the date of initial startup, whichever is later. For an existing unit, the initial performance evaluation shall be completed no later than [INSERT THE DATE 3 YEARS AND 180 DAYS AFTER PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER].

~~(3) Compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data. The 30-day rolling arithmetic~~

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~~average emission concentration shall be calculated using EPA Reference Method 19 at 40 CFR part 60, appendix A-7.~~

~~(4) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. Collect at least four CEMS data values representing the four 15 minute periods in an hour, or at least two 15 minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed.~~

~~(5) (5) You must conduct a performance evaluation of each CO CEMS according to the requirements in §63.8(e) and according to Performance Specification 4, 4A, or 4B at 40 CFR part 60, appendix B. During each relative accuracy test run of the CO CEMS, emission data for carbon monoxide must be collected concurrently (or within a 30- to 60-minute period) by both the CO CEMS and by Method 10, 10A, or 10B at 40 CFR part 60, appendix A-4. The relative accuracy testing must be at representative operating conditions.~~

~~(6) For each CO CEMS, you must follow the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Procedure 1 of appendix F to part 60. The ±span value of the CO CEMS must be two times the applicable CO emission limit, expressed as a concentration.~~

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(7) Each CO CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. Collect at least four CO CEMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CEMS calibration, quality assurance, or maintenance activities are being performed.

(8) The CO CEMS data must be reduced as specified in §63.8(g)(2).

(9) You must calculate one-hour arithmetic averages, corrected to 3 percent oxygen from each hour of CO CEMS data in parts per million carbon monoxide concentration. For all subcategories except for units designed to burn liquid fuels in non-continental states and territories, the one-hour arithmetic averages required shall be ~~expressed in lb/MMBtu and shall be~~ used to calculate the boiler operating day daily arithmetic average emissions. Calculate a 10-day rolling average from the daily averages. For units designed to burn liquid fuels in non-continental states and territories, the one-hour arithmetic averages required shall be used to calculate the 3-hour arithmetic average emissions. Use Equation 19-19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A-7 for

calculating the average carbon monoxide concentration from the hourly values.

~~(e)~~ (10) For purposes of collecting CO data, you must operate the CO CEMS as specified in §63.7535(b). You must use all the data collected during all periods in calculating data averages and assessing compliance, except that you must exclude certain data as specified in §63.7535(c). Periods when CO data are unavailable may constitute monitoring deviations as specified in §63.7535(d).

(b) If your boiler or process heater has an average annual heat input rate greater than 250 MMBtu per hour from solid fossil fuel and/or residual oil, and you demonstrate compliance with the PM limit instead of the alternative total selected metals limit, you must install, certify, maintain, and operate a PM CPMS monitoring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (b)(1) through (4) of this section. For other boilers or process heaters, you may elect to use a PM CPMS operated in accordance with this section in lieu of using other CMS for monitoring PM compliance (e.g., bag leak detectors, ESP secondary power, PM scrubber pressure).

(1) Install, certify, operate, and maintain your PM CPMS according to the procedures in your approved site-specific monitoring plan developed in accordance with §63.7505(d), the requirements in §63.7540(a)(9), and (b)(1)(i) through (iii) of this section.

(i) The operating principle of the PM CPMS must be based on in-stack or extractive light scatter, light scintillation, beta attenuation, or mass accumulation detection of PM in the exhaust gas or representative exhaust gas sample. The reportable measurement output from the PM CPMS may be expressed as milliamps, stack concentration, or other raw data signal.

(ii) The PM CPMS must have a cycle time (i.e., period required to complete sampling, measurement, and reporting for each measurement) no longer than 60 minutes.

(iii) The PM CPMS must be capable of detecting and responding to particulate matter concentrations of no greater than 0.5 milligram per actual cubic meter.

(2) For a new unit, complete the initial performance evaluation no later than [INSERT THE DATE 240 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER] or 180 days after the date of initial startup, whichever is later. For an existing unit, complete the initial performance evaluation no

later than [INSERT THE DATE 3 YEARS AND 180 DAYS AFTER  
PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

(3) Collect PM CPMS hourly average output data for all  
boiler operating hours except as indicated in §63.7535(a)  
through (d). Express the PM CPMS output as millamps, PM  
concentration, or other raw data signal value.

(4) Calculate the arithmetic 30-day rolling average of all  
of the hourly average PM CPMS output data collected during all  
boiler operating hours (e.g., milliamps, PM concentration, raw  
data signal).

(c) If you have an applicable opacity operating limit in  
this rule, and are not otherwise required or elect to install  
and operate a PM ~~CEMS~~CPMS or a bag leak detection system, you  
must install, operate, certify and maintain each COMS according  
to the procedures in paragraphs (c)(1) through (7) of this  
section by the compliance date specified in §63.7495.

(1)— Each COMS must be installed, operated, and maintained  
according to Performance Specification 1 at appendix B to part  
60 of this chapter.

(2)— You must conduct a performance evaluation of each COMS  
according to the requirements in §63.8(e) and according to

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Performance Specification 1 at appendix B to part 60 of this chapter.

(3)– As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4)– The COMS data must be reduced as specified in §63.8(g)(2).

(5)– You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d).– At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6)– You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of §63.8(e).– You must identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit. –Any 6-minute period for which the monitoring system is out of control and data are not

available for a required calculation constitutes a deviation from the monitoring requirements.

(7)– You must determine and record all the 6-minute averages (and daily block averages as applicable) collected for periods during which the COMS is not out of control.

(d)– If you have an operating limit that requires the use of a CMS other than a PM CPMS or COMS, you must install, operate, and maintain each ~~continuous parameter monitoring system~~CMS according to the procedures in paragraphs (d) (1) through (5) of this section by the compliance date specified in §63.7495.

(1)– The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period.– You must have a minimum of four successive cycles of operation to have a valid hour of data.

~~(2)– Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data.~~



~~Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.~~

~~(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance.~~ (2) You must operate the monitoring system as specified in §63.7535(b), and comply with the data calculation requirements specified in §63.7535(c).

(3) Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Other situations that constitute a monitoring deviation are specified in §63.7535(d).

(4) ~~You must determine the 4-hour block~~30-day rolling average of all recorded readings, except as provided in paragraph (d)(3) of this section.

(5) ~~You must record the results of each inspection, calibration, and validation check.~~

(e)– If you have an operating limit that requires the use of a flow monitoring system, you must meet the requirements in paragraphs (d) and (e)(1) through (4) of this section.

(1)– You must install the flow sensor and other necessary equipment in a position that provides a representative flow.

(2)– You must use a flow sensor with a measurement sensitivity of no greater than 2 percent of the expected flow rate.

(3)– You must minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4)– You must conduct a flow monitoring system performance evaluation in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(f)– If you have an operating limit that requires the use of a pressure monitoring system, you must meet the requirements in paragraphs (d) and (f)(1) through (6) of this section.

(1)– Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (e.g., PM scrubber pressure drop).

(2)– Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

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(3)– Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, ~~whichever is~~ whichever is less.

(4)– Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (e.g., check for pressure tap pluggage daily).

(5)– Conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(6)– If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in you monitoring plan.– Alternatively, install and verify the operation of a new pressure sensor.

(g)– If you have an operating limit that requires a pH monitoring system, you must meet the requirements in paragraphs (d) and (g)(1) through (4) of this section.

(1)– Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2)– Ensure the sample is properly mixed and representative of the fluid to be measured.

(3)– Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.

(4) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.

(h)– If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator (ESP) operated with a wet scrubber, you must meet the requirements in paragraphs (h)(1) and (2) of this section.

–(1) Install sensors to measure (secondary) voltage and current to the precipitator collection plates.

–(2) Conduct a performance evaluation of the electric power monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(i)– If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (d) and (i)(1) through (2) of this section.

(1)– Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2)– Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

–(j) –If you are not required to use a PM ~~CEMS~~CPMS and elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (j)(1) through (~~7~~6) of this section.

(1)– You must install a bag leak detection sensor(s) in a position(s) that will be ~~representative~~representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter~~...~~.

(2) — Conduct a performance evaluation of the bag leak detection system in accordance with your monitoring plan and consistent with the guidance provided in EPA-454/R-98-015 (incorporated by reference, see §63.14).

(3) — Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) — Use a bag leak detection system —equipped with a device to record continuously the output signal from the sensor.

(5) — Use a bag leak detection system equipped with a system that will ~~alert~~when alert when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it can be easily heard or seen by plant operating personnel.

~~(7) —~~(6) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

—(k)— For each unit that meets the definition of limited-use boiler or process heater, you must monitor and record the operating hours per year for that unit.

(1) For each unit for which you decide to demonstrate compliance with the mercury or hydrogen chloride emissions limits in Tables 1 or 2 of this subpart by use of a CEMS for mercury or hydrogen chloride, you must install, certify, maintain, and operate a CEMS measuring emissions discharged to the atmosphere and record the output of the system as specified in paragraphs (1)(1) through (8) of this section. For hydrogen chloride, this option for an affected unit takes effect on the date a final performance specification for a hydrogen chloride CEMS is published in the Federal Register or the date of approval of a site-specific monitoring plan.

(1) Notify the Administrator one month before starting use of the CEMS, and notify the Administrator one month before stopping use of the CEMS.

(2) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in §63.7540(a)(14) for a mercury CEMS and §63.7540(a)(15) for a hydrogen chloride CEMS.

(3) For a new unit, you must complete the initial performance evaluation of the CEMS by the latest of the dates specified in paragraph (1)(3)(i) through (iii) of this section.

(i) No later than [INSERT THE DATE 240 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

(ii) No later 180 days after the date of initial startup.

(iii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(4) For an existing unit, you must complete the initial performance evaluation by the latter of the two dates specified in paragraph (1)(4)(i) and (ii) of this section.

(i) No later than [INSERT THE DATE 3 YEARS AND 180 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].

(ii) No later 180 days after notifying the Administrator before starting to use the CEMS in place of performance testing or fuel analysis to demonstrate compliance.

(5) Compliance with the applicable emissions limit shall be determined based on the 30-day rolling average of the hourly arithmetic average emissions rates using the continuous monitoring system outlet data. The 30-day rolling arithmetic average emission rate (lb/MMBtu) shall be calculated using the equations in EPA Reference Method 19 at 40 CFR part 60, appendix A-7, but substituting the mercury or hydrogen chloride concentration for the pollutant concentrations normally used in Method 19.



(6) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. Collect at least four CMS data values representing the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

(7) The one-hour arithmetic averages required shall be expressed in lb/MMBtu and shall be used to calculate the boiler operating day daily arithmetic average emissions.

(8) If you are using an add-on control to comply with the mercury or hydrogen chloride emission limit, you are allowed to substitute the use of the mercury or hydrogen chloride CEMS for the applicable fuel analysis, annual performance test, and operating limits specified in Table 4 to this subpart to demonstrate compliance with the mercury or hydrogen chloride emissions limit.

§63.7530 How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards?

(a)— You must demonstrate initial compliance with each emission limit that applies to you by conducting initial performance tests and fuel analyses and establishing operating

limits, as applicable, according to §63.7520, paragraphs (b) and (c) of this section, and Tables 5 and 7 to this subpart.— If applicable, you must also install, ~~and operate,~~ and maintain all applicable CMS (including CEMS, COMS, and continuous parameter monitoring systems) according to §63.7525.

(b)— If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Table 4 to this subpart that applies to you according to the requirements in §63.7520, Table 7 to this subpart, and paragraph (b) ~~(34)~~ of this section, as applicable.— You must also conduct fuel analyses according to §63.7521 and establish maximum fuel pollutant input levels according to paragraphs (b) (1) ~~and (2) through (3)~~ of this section, as applicable.— ~~As, and as specified in §63.7510(a), if your affected source burns (2).~~ (Note that §63.7510(a) single type of fuel (excluding supplemental) (2) exempts certain fuels used for unit startup, shutdown, or transient flame stabilization), you are not required to perform from the initial fuel analysis for each type of fuel burned in your boiler or process heater. requirements.)

However, if you switch fuel(s) and cannot show that the new fuel(s) ~~do~~ (do) not increase the chlorine ~~or,~~ mercury, or total selected metals input into the unit through the results of

fuel analysis, then you must repeat the performance test to demonstrate compliance while burning the new fuel(s).

(1)– You must establish the maximum chlorine fuel input (C<sub>input</sub>) during the initial fuel analysis according to the procedures in paragraphs (b)(1)(i) through (iii) of this section.

(i)– You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of chlorine.

(ii)– During the fuel analysis for hydrogen chloride, you must determine the fraction of the total heat input for each fuel type burned (Q<sub>i</sub>) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned (C<sub>i</sub>).

(iii)– You must establish a maximum chlorine input level using Equation 7 of this section.

$$C_{input} = \sum_{i=1}^n C_i \times Q_i \quad (\text{Eq. 7})$$

Where:

C<sub>input</sub> = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

C<sub>i</sub> = Arithmetic average concentration of chlorine in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

$Q_i$  = Fraction of total heat input from fuel type,  $i$ , based on the fuel mixture that has the highest content of chlorine. ~~—~~If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ .

$n$  = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) ~~—~~ You must establish the maximum mercury fuel input level ( $Mercury_{input}$ ) during the initial fuel analysis using the procedures in paragraphs (b)(2)(i) through (iii) of this section.

(i) ~~—~~ You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) ~~—~~ During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned ( $Q_i$ ) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned ( $HG_i$ ).

(iii) ~~—~~ You must establish a maximum mercury input level using Equation 8 of this section.

$$Mercury_{input} = \sum_{i=1}^n HG_i \times Q_i \quad (Eq. 8)$$

Where:

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Mercuryinput = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

HGi = Arithmetic average concentration of mercury in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Qi = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. -If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. -Insert a value of "1" for Qi.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(3) If you opt to comply with the alternative total selected metals limit, you must establish the maximum total selected metals fuel input (TSMinput) for solid fuels during the initial fuel analysis according to the procedures in paragraphs (b)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of total selected metals.

(ii) During the fuel analysis for total selected metals, you must determine the fraction of the total heat input for each fuel type burned (Qi) based on the fuel mixture that has the highest content of total selected metals, and the average total selected metals concentration of each fuel type burned (TSMi).

(iii) You must establish a maximum total selected metals input level using Equation 9 of this section.

$$TSM_{input} = \sum_{i=1}^n TSM_i \times Q_i \quad (\text{Eq. 9})$$

Where:

TSM<sub>input</sub> = Maximum amount of total selected metals entering the boiler or process heater through fuels burned in units of pounds per million Btu.

TSM<sub>i</sub> = Arithmetic average concentration of total selected metals in fuel type, i, analyzed according to §63.7521, in units of pounds per million Btu.

Q<sub>i</sub> = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for Q<sub>i</sub>.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of total selected metals.

(4) You must establish parameter operating limits according to paragraphs (b) (3)(i) through (iv) of this section4) (i) through (vii) of this section. As indicated in Table 4 to this subpart, you are not required to establish and comply with the operating parameter limits when you are using a CEMS to monitor and demonstrate compliance with the applicable emission limit for that control device parameter.

(i)– For a wet acid gas scrubber, you must establish the minimum scrubber effluent pH, and liquid flowrate, and pressure

~~drop-flow rate~~ as defined in §63.7575, as your operating limits during the three-run performance test.— during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for ~~particulate matter,~~ hydrogen chloride, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid ~~flowrate~~flow rate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the hydrogen chloride performance test.— If you conduct multiple performance tests, you must set the minimum liquid ~~flowrate and pressure drop~~flow rate operating ~~limits~~limit at the ~~highest~~higher of the minimum values established during the performance tests.

(ii) For any particulate control device (e.g., ESP, particulate wet scrubber, fabric filter) for which you use a PM CPMS, you must establish your operating limit during the three-run performance during which you demonstrate compliance with your applicable limit. The PM CPMS operating limit is the 1-hour average PM CPMS output value recorded during the performance test. If you conduct separate performance tests for PM and total selected metals, you must set the maximum PM CPMS operating

limits at the lower of maximum PM CPMS values established during the performance tests.

(iii) For a particulate wet scrubber, you must establish the minimum pressure drop and liquid flow rate as defined in §63.7575, as your operating limits during the three-run performance test during which you demonstrate compliance with your applicable limit. If you use a wet scrubber and you conduct separate performance tests for particulate matter and total selected metals emissions, you must establish one set of minimum scrubber liquid flow rate and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the hydrogen chloride performance test. If you conduct multiple performance tests, you must set the minimum liquid flow rate and pressure drop operating limits at the higher of the minimum values established during the performance tests.

(iv) For an electrostatic precipitator operated with a wet scrubber, you must establish the minimum voltage and secondary amperage (or total power input), as defined in §63.7575, as your operating limits during the three-run performance test—during which you demonstrate compliance with your applicable limit.

(These operating limits do not apply to electrostatic



precipitators that are operated as dry controls without a wet scrubber.)

~~(iii)~~v) For a dry scrubber, you must establish the minimum sorbent injection rate for each sorbent, as defined in §63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

~~(iv)~~vi) For activated carbon injection, you must establish the minimum activated carbon injection rate, as defined in §63.7575, as your operating limit during the three-run performance test during which you demonstrate compliance with your applicable limit.

~~(v)~~vii) The operating limit for boilers or process heaters with fabric filters that demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in §63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

~~(c)~~— If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must

conduct fuel analyses according to §63.7521 and follow the procedures in paragraphs (c)(1) through (45) of this section.

(1)– If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2)– You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 910 of this section.

$$P90 = \text{mean} + \text{SD} \times t \quad (\text{Eq. } 910)$$

Where:

- P90 = 90th percentile confidence level pollutant concentration, in pounds per million Btu.
- Mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.
- SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to §63.7521, in units of pounds per million Btu.
- T = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) — To demonstrate compliance with the applicable emission limit for hydrogen chloride, the hydrogen chloride emission rate that you calculate for your boiler or process heater using Equation ~~1011~~ of this section must not exceed the applicable emission limit for hydrogen chloride.

$$HCl = \sum_{i=1}^n C_{i90} \times Q_i \times 1.028 \quad (\text{Eq. } \del{1011})$$

Where:

HCl = Hydrogen chloride emission rate from the boiler or process heater in units of pounds per million Btu.

C<sub>i90</sub> = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation ~~910~~ of this section.

Q<sub>i</sub> = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. — If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Q<sub>i</sub>.

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of hydrogen chloride to chlorine.

(4) — To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation ~~1112~~ of this

section must not exceed the applicable emission limit for mercury.

$$\text{Mercury} = \sum_{i=1}^n \text{Hg}_{i90} \times Q_i \quad (\text{Eq. } \del{11}{12})$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

Hg<sub>i90</sub> = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation ~~9~~10 of this section.

Q<sub>i</sub> = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. ~~—If you do not burn multiple fuel types, it is not necessary to determine the value of this term. —Insert a value of “1” for Q<sub>i</sub>.~~

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(5) To demonstrate compliance with the applicable emission limit for total selected metals for solid fuels, the total selected metals emission rate that you calculate for your boiler or process heater from solid fuels using Equation 13 of this section must not exceed the applicable emission limit for total selected metals.

$$\text{Metals} = \sum_{i=1}^n \text{SM}_{90i} \times Q_i \quad (\text{Eq. } 13)$$

Where:

<u>Metals</u>	<u>= Total selected metals emission rate from the boiler or process heater in units of pounds per million Btu.</u>
<u>TSMi90</u>	<u>= 90th percentile confidence level concentration of total selected metals in fuel, i, in units of pounds per million Btu as calculated according to Equation 10 of this section.</u>
<u>Qi</u>	<u>= Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest total selected metals content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for Qi.</u>
<u>n</u>	<u>= Number of different fuel types burned in your boiler or process heater for the mixture that has the highest total selected metals content.</u>

(d)– If you own or operate an existing unit with a heat input capacity of less than 10 million Btu per hour, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the unit.

(e)– You must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to this subpart and is an accurate depiction of your facility.

(f)– You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7545(e).

(g) If you elect to demonstrate that a gaseous fuel meets the specifications of an other gas 1 fuel as defined in §63.7575, you must conduct an initial fuel specification analyses according to §63.7521(f) through (i). ~~—If the mercury and hydrogen sulfide constituents in the gaseous fuels will never exceed the specifications~~specification included in the definition, you will include a signed certification with the Notification of Compliance Status that the initial fuel specification test meets the gas ~~specifications~~specification outlined in the definition of other gas 1 fuels.~~— If your gas constituents could vary above the specifications,~~ you will conduct monthly testing according to the procedures in §63.7521(f) through (i) and §63.7540(c) and maintain records of the results of the testing as outlined in §63.7555(g).

(h) If you own or operate a unit subject ~~emission limits in Tables 1, 2, or 12 of this subpart, you must minimize the unit's startup and shutdown periods following the manufacturer's recommended procedures, if available. — If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.~~to emission limits in Tables 1 or 2 to this subpart, you must meet the work

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practice standard according to Table 3 of this subpart. You must submit a signed statement in the Notification of Compliance Status report that indicates that you ~~conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a unit of similar design if manufacturer's recommended procedures are not available.~~employed good combustion practices and you maintained oxygen concentrations as specified by the boiler manufacturer for each startup and shutdown event.

\$63.7533 Can I use emission credits earned from implementation of energy conservation measures to comply with this subpart?

(a)– If you elect to comply with the alternative equivalent steam output-based emission limits, instead of the heat input-based limits, listed in ~~Tables 1 and~~Table 2 ~~of~~to this subpart, and you want to take credit for implementing energy conservation measures identified in an energy assessment, you may demonstrate compliance using emission reduction credits according to the procedures in this section.– You may use this compliance approach for an existing affected boiler for demonstrating initial compliance according to §63.7522(e) and for demonstrating monthly compliance according to §63.7522(f).

Owners or operators using this compliance approach must

establish an emissions benchmark, calculate and document the emission credits, develop an Implementation Plan, comply with the general reporting requirements, and apply the emission credit according to the procedures in paragraphs (b) through (f) of this section. You cannot use this compliance approach for a new or reconstructed affected boiler.

(b)— For each existing affected boiler for which you intend to apply emissions credits, establish a benchmark from which emission reduction credits may be generated by determining the actual annual fuel heat input to the affected boiler before initiation of an energy conservation activity to reduce energy demand (i.e., fuel usage) according to paragraphs (b)(1) through (4) of this section.— The benchmark shall be expressed in trillion Btu per year heat input.

(1)— The benchmark from which emission credits may be generated shall be determined by using the most representative, accurate, and reliable process available for the source.— The benchmark shall be established for a one-year period before the date that an energy demand reduction occurs, unless it can be demonstrated that a different time period is more representative of historical operations.



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(2)– Determine the starting point from which to measure progress.– Inventory all fuel purchased and generated on-site (off-gases, residues) in physical units (MMBtu, million cubic feet, etc.).

(3)– Document all uses of energy from the affected boiler. Use the most recent data available.

(4)– Collect non-energy related facility and operational data to normalize, if necessary, the benchmark to current operations, such as building size, operating hours, etc. ~~Use actual, not estimated, use data, if~~ If possible ~~and, use actual~~ data that are current and timely rather than estimated data.

(c)– Emissions credits can be generated if the energy conservation measures were implemented after January ~~14, 2011~~, 2008 and if sufficient information is available to determine the appropriate value of credits.

(1)– The following emission points cannot be used to generate emissions averaging credits:

(i) ~~–~~Energy conservation measures implemented on or before January ~~14, 2011~~, 2008, unless the level of energy demand reduction is increased after January ~~14, 2011~~, 2008, in which case credit will be allowed only for change in demand reduction achieved after January ~~14, 2011~~, 2008.

(ii) ~~—Emission credits on shut-down boilers. —Boilers that~~  
are shut down cannot be used to generate credits.

(2) ~~—For all points included in calculating emissions~~  
credits, the owner or operator shall:

(i) ~~—Calculate annual credits for all energy demand points.~~  
Use Equation ~~1214~~ to calculate credits. ~~— Energy conservation~~  
measures that meet the criteria of paragraph (c)(1) of this  
section shall not be included, except as specified in paragraph  
(c)(1)(i) of this section.

(3) ~~— Credits are generated by the difference between the~~  
benchmark that is established for each affected boiler, and the  
actual energy demand reductions from energy conservation  
measures implemented after January ~~14, 2011.~~ 1, 2008. Credits  
shall be calculated using Equation ~~1214~~ of this section as  
follows:

(i) ~~— The overall equation for calculating credits is:~~

$$ECredits = \left( \sum_{i=1}^n EIS_{iactual} \right) \div EI_{baseline} \quad (\text{Eq. } \del{1214})$$

where:

~~Credits~~ ECredits = Energy Input Savings for all energy  
conservation measures implemented for an  
affected boiler, ~~million Btu per year~~ expressed  
as a decimal fraction of the baseline energy  
input.

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$EIS_{iactual}$  = Energy Input Savings for each energy conservation measure, i, implemented for an affected boiler, million Btu per year.

$EI_{baseline}$  = Energy Input baseline for the affected boiler, million Btu per year.

n = Number of energy conservation measures included in the emissions credit for the affected boiler.

(d) ~~—~~ The owner or operator shall develop and submit for approval an Implementation Plan containing all of the information required in this paragraph for all boilers to be included in an emissions credit approach. ~~—~~ The Implementation Plan shall identify all existing affected boilers to be included in applying the emissions credits. ~~—~~ The Implementation Plan shall include a description of the energy conservation measures implemented and the energy savings generated from each measure and an explanation of the criteria used for determining that savings. ~~—~~ You must submit the implementation plan for emission credits to the applicable delegated authority for review and approval no later than 180 days before the date on which the facility intends to demonstrate compliance using the emission credit approach.

(e) ~~—~~ The emissions rate as calculated using Equation 15 of this section from each existing boiler participating in the emissions credit option must be in compliance with the limits in

Table 2 to this subpart at all times following the compliance date specified in §63.7495.

(f) ~~You must demonstrate initial compliance according to paragraph (f)(1) or (2) of this section.~~

~~(1)~~ You must use Equation ~~13~~15 of this section to demonstrate initial compliance by demonstrating that the emissions from the affected boiler participating in the emissions credit compliance approach do not exceed the emission limits in Table 2 to this subpart.

$$E_{adj} = E_m \times \left[ - ECredits \right] \quad (\text{Eq. } ~~13~~15)$$

where:

$E_{adj}$  = Emission level adjusted by applying the emission credits earned, lb per million Btu steam output for the affected boiler.

$E_m$  = Emissions measured during the performance test, lb per million Btu steam output for the affected boiler.

ECECredits = Emission credits from ~~equation 12~~Equation 14 for the affected boiler.

### Continuous Compliance Requirements

§63.7535 ~~How do I monitor and collect~~Is there a minimum amount of monitoring data to demonstrate continuous complianceI must obtain?

(a)— You must monitor and collect data according to this section and the site-specific monitoring plan required by §63.7505(d).

(b)— You must operate the monitoring system and collect data at all required intervals at all times that the affected source is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see §63.8(c)(7) of this part), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks~~and~~, required zero and span adjustments—, and scheduled CMS maintenance as defined in your site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data.— Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. —You are required to ~~effects~~complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c)— You may not use data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with

monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels.— You must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with your site-specific monitoring plan. You must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system.

(d)— Except for periods of monitoring system malfunctions ~~or out-of-control periods~~, repairs associated with monitoring system malfunctions ~~or out-of-control periods~~, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments<sup>7</sup>), failure to collect required data is a deviation of the monitoring requirements.

§63.7540 How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards?

(a)— You must demonstrate continuous compliance with each emission limit, ~~operating limit,~~ in Tables 1 and 2 to this subpart, the work practice ~~standard in Tables 1 through 3~~standards in Table 3 to this subpart, and the operating limits in Table 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs

(a)(1) through ~~(11)~~17 of this section.

(1)— Following the date on which the initial compliance demonstration is completed or is required to be completed under §§63.7 and 63.7510, whichever date comes first, operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits listed in Table 4 of this subpart except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits.— Operating limits must be confirmed or reestablished during performance tests.

(2)— As specified in §63.7550(c), you must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would ~~either result in lower emissions of hydrogen chloride and mercury than the~~

~~applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of chlorine and mercury than the maximum values calculated during the last performance test (if you demonstrate compliance through performance testing).~~ result in either of the following:

(i) Lower emissions of hydrogen chloride, mercury, and total selected metals than the applicable emission limit for each pollutant, if you demonstrate compliance through fuel analysis.

(ii) Lower fuel input of chlorine, mercury, and total selected metals than the maximum values calculated during the last performance test, if you demonstrate compliance through performance testing.

(3)– If you demonstrate compliance with an applicable hydrogen chloride emission limit through fuel analysis for a solid or liquid fuel and you plan to burn a new type of solid or liquid fuel, you must recalculate the hydrogen chloride emission rate using Equation 911 of §63.7530 according to paragraphs

(a) (3) (i) through (iii) of this section. You are not required to complete fuel analyses for the fuels described in §63.7510(a) (2) (i) through (iii). You may exclude the fuels



described in §63.7510(a)(2)(i) through (iii) when recalculating the hydrogen chloride emission rate.

(i)— You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii)— You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii)— Recalculate the hydrogen chloride emission rate from your boiler or process heater under these new conditions using Equation ~~10~~11 of §63.7530.— The recalculated hydrogen chloride emission rate must be less than the applicable emission limit.

(4)— If you demonstrate compliance with an applicable hydrogen chloride emission limit through performance testing and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 7 of §63.7530.— If the results of recalculating the maximum chlorine input using Equation 7 of §63.7530 are greater than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture

according to the procedures in §63.7520 to demonstrate that the hydrogen chloride emissions do not exceed the emission limit.

You must also establish new operating limits based on this performance test according to the procedures in §63.7530(b). In recalculating the maximum chlorine input and establishing the new operating limits, you are not required to complete fuel analyses for and include the fuels described in §63.7510(a)(2)(i) through (iii).

(5)– If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation ~~44~~12 of §63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to complete fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(i)– You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii)— You must determine the new mixture of fuels that will have the highest content of mercury.

(iii)— Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation ~~11~~12 of §63.7530.— The recalculated mercury emission rate must be less than the applicable emission limit.

(6)— If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 8 of §63.7530.— If the results of recalculating the maximum mercury input using Equation 8 of §63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. —You must also establish new operating limits based on this performance test according to the procedures in §63.7530(b). You are not required to complete fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels

described in §63.7510(a)(2)(i) through (iii) when recalculating the mercury emission rate.

(7)— If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period.— You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. —You must also record the percent of the operating time during each 6-month period that the alarm sounds. —In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. —If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

~~(8)—[Reserved].~~

(8) If you install a CO CEMS according to §63.7525(a), then you must meet the requirements in paragraphs (a)(8)(i) through (iii) of this section.

(i) Continuously monitor CO according to §§63.7525(a) and 63.7535.

(ii) Maintain a CO emission level below or at your applicable alternative CO CEMS-based standard in Tables 1 or 2 to this subpart at all times.

(iii) Keep records of CO levels according to §63.7555(b).

(9)– The owner or operator of an affected source using a ~~CEMS measuring PM emissions~~PM CPMS to meet requirements of this subpart shall install, certify, operate, and maintain the PM ~~CEMS as specified in paragraphs (a)(9)(i) through (a)(9)(iv) of this section.~~

~~(i) The owner or operator shall conduct a performance evaluation of the PM CEMS according to the applicable requirements of §60.13, and Performance Specification 11 at 40 CFR part 60, appendix B of this chapter.~~

~~(ii) During each PM correlation testing run of the CEMS required by Performance Specification 11 at 40 CFR part 60, appendix B of this chapter, PM and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30-to 60-~~

~~minute period) by both the CEMS and conducting performance tests using Method 5 or 5B at 40 CFR part 60, appendix A-3 or Method 17 at 40 CFR part 60, appendix A-6 of this chapter.~~

~~(iii) Quarterly accuracy determinations and daily calibration drift tests shall be performed~~CPMS ~~in accordance with Procedure 2 at 40 CFR part 60, appendix F of this chapter. Relative Response Audits must be performed annually and Response Correlation Audits must be performed every 3 years.~~your site-specific monitoring plan as required in §63.7505(d).

~~(iv) After December 31, 2011, within 60 days after the date of completing each CEMS relative accuracy test audit or performance test conducted to demonstrate compliance with this subpart, you must submit the relative accuracy test audit data and performance test data to EPA by successfully submitting the data electronically into EPA's Central Data Exchange by using the Electronic Reporting Tool (see ).~~

~~-(10)-~~ If your boiler or process heater is in either the natural gas, refinery gas, other gas 1, or Metal Process Furnace subcategories and has a heat input capacity of 10 million Btu per hour or greater, you must conduct a tune-up of the boiler or process heater annually to demonstrate continuous compliance as specified in paragraphs (a)(10)(i) through (a)(10)(vi) of this

section.— This requirement does not apply to limited-use boilers and process heaters, as defined in §63.7575.

(i)— As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled or unscheduled unit shutdown, ~~but you must inspect each burner at least once every 36 months~~);

(ii)— Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern.— The adjustment should be consistent with the manufacturer's specifications, if available;

(iii)— Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly;

(iv) —Optimize total emissions of carbon monoxide. —This optimization should be consistent with the manufacturer's specifications, if available;

(v)— Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it

is the same basis before and after the adjustments are made);  
and

(vi)– Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section,

(A)– The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured before and after the adjustments of the boiler;

(B)– A description of any corrective actions taken as a part of the combustion adjustment; and

(C)– The type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period.– Units sharing a fuel meter may estimate the fuel ~~use~~used by each unit.

(11)– If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour, (except as specified in paragraph (a)(12) of this section), or meets the definition of limited-use boiler or process heater in §63.7575, you must conduct a biennial tune-up of the boiler or process



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heater as specified in paragraphs (a)(10)(i) through (a)(10)(vi) of this section to demonstrate continuous compliance.

~~(12)~~ (12) If your boiler or process heater has a heat input capacity of less than 5 million Btu per hour, and the unit is in the units designed to burn natural gas, refinery gas or other gas 1 fuels, units designed to burn gas 2 (other), or units designed to burn light liquid subcategories, you must conduct a tune-up of the boiler or process heater every 5 years as specified in paragraphs (a)(10)(i) through (a)(10)(vi) of this section to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months.

(13) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup.

~~(b)~~ (14) If you are using a CEMS measuring mercury emissions to meet requirements of this subpart you must install, certify, operate, and maintain the mercury CEMS as specified in paragraphs (a)(14)(i) and (ii) of this section.

(i) Operate the mercury CEMS in accordance with performance specification 12A of 40 CFR part 60, appendix B or operate a

sorbent trap based integrated monitor in accordance with performance specification 12B of 40 CFR part 60, appendix B. The duration of the performance test must be a calendar month. For each calendar month in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a mercury CEMS, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(15) If you are using a CEMS to measure hydrogen chloride emissions to meet requirements of this subpart, you must install, certify, operate, and maintain the hydrogen chloride CEMS as specified in paragraphs (a)(15)(i) and (ii) of this section. This option for an affected unit takes effect on the date a final performance specification for a hydrogen chloride CEMS is published in the Federal Register or the date of approval of a site-specific monitoring plan.

(i) Operate the continuous emissions monitoring system in accordance with the applicable performance specification in 40

CFR part 60, appendix B. The duration of the performance test must be a calendar month. For each calendar month in which the unit operates, you must obtain hourly hydrogen chloride concentration data, and stack gas volumetric flow rate data.

(ii) If you are using a hydrogen chloride continuous emissions monitoring system, you must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the hydrogen chloride mass emissions rate to the atmosphere according to the requirements of the applicable performance specification of 40 CFR part 60, appendix B, and the quality assurance procedures of 40 CFR part 60, appendix F.

(16) If you demonstrate compliance with an applicable total selected metals emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum total selected metals input using Equation 9 of §63.7530. If the results of recalculating the maximum total selected metals input using Equation 9 of §63.7530 are higher than the maximum total selected input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.7520 to demonstrate that the total selected metals emissions

do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in §63.7530(b). You are not required to complete fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §63.7510(a)(2)(i) through (iii) when recalculating the total selected metals emission rate.

(17) If you demonstrate compliance with an applicable total selected metals emission limit through fuel analysis for solid fuels, and you plan to burn a new type of fuel, you must recalculate the total selected metals emission rate using Equation 13 of §63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section. You are not required to complete fuel analyses for the fuels described in §63.7510(a)(2)(i) through (iii). You may exclude the fuels described in §63.7510(a)(2)(i) through (iii) when recalculating the total selected metals emission rate.

(i) You must determine the total selected metals concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to §63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of total selected metals.

(iii) Recalculate the total selected metals emission rate from your boiler or process heater under these new conditions using Equation 13 of §63.7530. The recalculated total selected metals emission rate must be less than the applicable emission limit.

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 through 4 to this subpart that apply to you.— These instances are deviations from the emission limits or operating limits, respectively, in this subpart.— These deviations must be reported according to the requirements in §63.7550.

(c)— If you elected to demonstrate that the unit meets the ~~specifications~~specification for ~~hydrogen sulfide and~~ mercury for the other gas 1 subcategory and you cannot submit a signed certification under §63.7545(g) because the constituents could exceed the ~~specifications~~specification, you must conduct monthly fuel specification testing of the gaseous fuels, according to the procedures in §63.7521(f) through (i).

(d) For periods of startup and shutdown, you must meet the work practice standards according to Table 3 of this subpart.

§63.7541 How do I demonstrate continuous compliance under the  
emissions averaging provision?

(a)— Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (5) of this section.

(1)— For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing units participating in the emissions averaging option as determined in §63.7522(f) and (g).

(2)— You must maintain the applicable opacity limit according to paragraphs (a)(2)(i) and (ii) of this section.

(i)— For each existing unit participating in the emissions averaging option that is equipped with a dry control system and not vented to a common stack, maintain opacity at or below the applicable limit.

(ii)— For each group of units participating in the emissions averaging option where each unit in the group is equipped with a dry control system and vented to a common stack that does not receive emissions from non-affected units, maintain opacity at or below the applicable limit at the common stack.

(3)– For each existing unit participating in the emissions averaging option that is equipped with a wet scrubber, maintain the ~~3-hour~~30-day rolling average parameter values at or below the operating limits established during the most recent performance test.

(4)– For each existing unit participating in the emissions averaging option that has an approved alternative operating plan, maintain the ~~3-hour~~30-day rolling average parameter values at or below the operating limits established in the most recent performance test.

(5)– For each existing unit participating in the emissions averaging option venting to a common stack configuration containing affected units from other subcategories, maintain the appropriate operating limit for each unit as specified in Table 4 to this subpart that applies.

(b)– Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (5) of this section is a deviation.

#### **Notification, Reports, and Records**

§63.7545 What notifications must I submit and when?

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(a)— You must submit to the delegated authority all of the notifications in §63.7(b) and (c), §63.8(e), (f)(4) and (6), and §63.9(b) through (h) that apply to you by the dates specified.

(b)— As specified in §63.9(b)(2), if you startup your affected source before [INSERT THE DATE 60 DAYS AFTER THE DATE OF PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER], you must submit an Initial Notification not later than 120 days after [INSERT THE DATE 60 DAYS AFTER THE DATE OF PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER].

(c)— As specified in §63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after [INSERT THE DATE 60 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER], you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d)— If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin.

(e)— If you are required to conduct an initial compliance demonstration as specified in §63.7530(a), you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).



For the initial compliance demonstration for each affected source, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for the affected source according to

§63.10(d)(2). ~~—~~The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable.

(1)~~—~~ A description of the affected unit(s) including identification of which subcategory the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit, description of the fuel(s) burned, including whether the fuel(s) were determined by you or EPA through a petition process to be a non-waste under §241.3, whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of §241.3, and justification for the selection of fuel(s) burned during the compliance demonstration.

(2)~~—~~ Summary of the results of all performance tests and fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.

(3)– A summary of the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable emission standard in Table 1, ~~2~~, or ~~122~~ to this subpart, if you are not using a CO CEMS to demonstrate compliance.

(4)– Identification of whether you plan to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis.

(5)– Identification of whether you plan to demonstrate compliance by emissions averaging and identification of whether you plan to demonstrate compliance by using emission credits through energy conservation:

(i)– If you plan to demonstrate compliance by emission averaging, report the emission level that was being achieved or the control technology employed on [INSERT THE DATE 60 DAYS AFTER PUBLICATION OF ~~THIS~~THE FINAL RULE IN THE FEDERAL REGISTER].

(6)– A signed certification that you have met all applicable emission limits and work practice standards.

(7)– If you had a deviation from any emission limit, work practice standard, or operating limit, you must also submit a description of the deviation, the duration of the deviation, and

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the corrective action taken in the Notification of Compliance Status report.

(8) In addition to the information required in §63.9(h)(2), your notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i)– “This facility complies with the requirements in §63.7540(a)(10), (a)(11), or (a)(12) to conduct an annual ~~or,~~ biennial, or 5-year tune-up, as applicable, of each unit.”

(ii)– “This facility has had an energy assessment performed according to §63.7530(e).”

(iii)– Except for units that qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act, include the following: “No secondary materials that are solid waste were combusted in any affected unit.”

(f)– If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuels that is subject to this subpart, and you intend to use a fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart of this part, or other gas 1 fuel to fire the affected unit during a period of natural gas curtailment or supply interruption, as defined in §63.7575, you must submit a notification of

alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption, as defined in §63.7575.— The notification must include the information specified in paragraphs (f)(1) through (5) of this section.

(1) —Company name and address.

(2) —Identification of the affected unit.

(3)— Reason you are unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4)— Type of alternative fuel that you intend to use.

(5) —Dates when the alternative fuel use is expected to begin and end.

(g)— If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste.— The notification must identify:

(1)— The name of the owner or operator of the affected source, the location of the source, the boiler(s) or process heater(s) that will commence burning solid waste, and the date of the notice.

(2) — The currently applicable subcategory under this subpart.

(3) — The date on which you became subject to the currently applicable emission limits.

(4) — The date upon which you will commence combusting solid waste.

(h) If you intend to switch fuels, and this fuel switch may result in the applicability of a different subcategory, you must provide 30 days prior notice of the date upon which you will switch fuels. — The notification must identify:

(1) — The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will switch fuels, and the date of the notice.

(2) — The currently applicable subcategory under this subpart.

(3) — The date on which you became subject to the currently applicable standards.

(4) — The date upon which you will commence the fuel switch.

§63.7550 What reports must I submit and when?

(a) — You must submit each report in Table 9 to this subpart that applies to you.

(b)— Unless the EPA Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.— For units that are subject only to a requirement to conduct an annual~~—or,~~ biennial, or 5-year tune-up according to §63.7540(a)(10~~+~~), (a)(11), or (a)(~~11~~12), respectively, and not subject to emission limits or operating limits, you may submit only an annual~~—or,~~ biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (5) of this section, instead of a semi-annual compliance report.

(1)— The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days (or 1, 2, or 2-year~~5 years~~, as applicable, if submitting an annual~~—or,~~ biennial, or 5-year compliance report) after the compliance date that is specified for your source in §63.7495.

(2)— The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half

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after the compliance date that is specified for your source in §63.7495.— The first annual ~~or~~, biennial, or 5-year compliance report must be postmarked no later than January 31.

(3)— Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual ~~and~~, biennial, and 5-year compliance reports must cover the applicable ~~one~~1-, 2-, or ~~two~~5-year periods from January 1 to December 31.

(4)— Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.— Annual ~~and~~, biennial, and 5-year compliance reports must be postmarked no later than January 31.

(5)— For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the delegated authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the delegated authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) — The compliance report must contain the information required in paragraphs (c) (1) through (13) of this section.

(1) — Company name and address.

(2) — Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) — Date of report and beginning and ending dates of the reporting period.

(4) — The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual (or annual~~—or~~, biennial, or 5-year) reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or your basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.

(5) — A summary of the results of the annual performance tests for affected sources subject to an emission limit, a summary of any fuel analyses associated with performance tests, and documentation of any operating limits that were reestablished during this test, if applicable. — If you are conducting performance tests once every 3 years consistent with §63.7515(b) or (c), the date of the last 2 performance tests, a



comparison of the emission level you achieved in the last 2 performance tests to the 75 percent emission limit threshold required in §63.7515(b) or (c), and a statement as to whether there have been any operational changes since the last performance test that could increase emissions.

(6)— A signed statement indicating that you burned no new types of fuel in an affected source subject to an emission limit.— Or, if you did burn a new type of fuel and are subject to a hydrogen chloride emission limit, you must submit the calculation of chlorine input, using Equation 5 of §63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of hydrogen chloride emission rate using Equation ~~1011~~ of §63.7530 that demonstrates that your source is still meeting the emission limit for hydrogen chloride emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).— If you burned a new type of fuel and are subject to a mercury emission limit, you must submit the calculation of mercury input, using Equation 8 of §63.7530, that demonstrates that your source is still within its maximum mercury input level

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established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using

Equation ~~11~~12 of §63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for

boilers or process heaters that demonstrate compliance through

fuel analysis). If you burned a new type of fuel and are subject

to a total selected metals emission limit, you must submit the

calculation of total selected metals input, using Equation 9 of

§63.7530, that demonstrates that your source is still within its

maximum total selected metals input level established during the

previous performance testing (for sources that demonstrate

compliance through performance testing), or you must submit the

calculation of total selected metals emission rate, using

Equation 13 of §63.7530, that demonstrates that your source is

still meeting the emission limit for total selected metals

emissions (for boilers or process heaters that demonstrate

compliance through fuel analysis).

(7)– If you wish to burn a new type of fuel in an affected source subject to an emission limit and you cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 7 of §63.7530 or the maximum mercury input operating

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limit using Equation 8 of §63.7530, or the maximum total selected metals input operating limit using Equation 9 of §63.7530 you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(8)— A summary of any monthly fuel analyses conducted to demonstrate compliance according to §§63.7521 and 63.7530 for affected sources subject to emission limits, and any fuel specification analyses conducted according to §63.7521(f) and §63.7530(g).

(9)— If there are no deviations from any emission limits or operating limits in this subpart that apply to you, a statement that there were no deviations from the emission limits or operating limits during the reporting period.

(10)— If there were no deviations from the monitoring requirements including no periods during which the CMSs, including CEMS, COMS, and continuous parameter monitoring systems, were out of control as specified in §63.8(c)(7), a statement that there were no deviations and no periods during which the CMS were out of control during the reporting period.

(11)— If a malfunction occurred during the reporting period, the report must include the number, duration, and a

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brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded.— The report must also include a description of actions taken by you during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with §63.7500(a)(3), including actions taken to correct the malfunction.

(12)— Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual ~~or,~~ biennial, or 5-year tune-up according to §63.7540(a)(10~~),~~ (a)(11), or (a)(~~11~~),12) respectively.— Include the date of the most recent burner inspection if it was not done annually ~~or,~~ biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

(13)— If you plan to demonstrate compliance by emission averaging, certify the emission level achieved or the control technology employed is no less stringent ~~that~~than the level or control technology contained in the notification of compliance status in §63.7545(e)(5)(i).

(14) For units subject to emission limits in Tables 1 or 2 of this subpart, for each startup or shutdown event during the

reporting period, report the percentage concentration of oxygen in the firebox on an hourly basis throughout the event, the calendar date and length of each event, and the reason for each event.

(d)– For each deviation from an emission limit or operating limit in this subpart that occurs at an affected source where you are not using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the information required in paragraphs (d)(1) through (4) of this section.

(1)– The total operating time of each affected source during the reporting period.

(2)– A description of the deviation and which emission limit or operating limit from which you deviated.

(3)– Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(4)– A copy of the test report if the annual performance test showed a deviation from the emission limits.

(e)– For each deviation from an emission limit, operating limit, and monitoring requirement in this subpart occurring at an affected source where you are using a CMS to comply with that

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emission limit or operating limit, you must include the information required in paragraphs (e)(1) through (12) of this section.— This includes any deviations from your site-specific monitoring plan as required in §63.7505(d).

(1)— The date and time that each deviation started and stopped and description of the nature of the deviation (*i.e.*, what you deviated from).

(2)— The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3)— The date, time, and duration that each CMS was out of control, including the information in §63.8(c)(8).

(4)— The date and time that each deviation started and stopped.

(5)— A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6)— An analysis of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7)— A summary of the total duration of CMS's downtime during the reporting period and the total duration of CMS

downtime as a percent of the total source operating time during that reporting period.

(8) — An identification of each parameter that was monitored at the affected source for which there was a deviation.

(9) — A brief description of the source for which there was a deviation.

(10) — A brief description of each CMS for which there was a deviation.

(11) — The date of the latest CMS certification or audit for the system for which there was a deviation.

(12) — A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) — Each affected source that has obtained a Title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A). — If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations

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from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. ~~However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the delegated authority.~~

(g) ~~+(Reserved+)~~

~~(h) As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in §63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see ) or other compatible electronic spreadsheet. (h) Within 60 days after the date of completing each performance test, you must transmit the results of the performance tests required by this subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). Performance test data must be submitted in the file format~~



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generated through use of EPA's Electronic Reporting Tool (ERT)  
(see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data  
collected using test methods on the ERT website are subject to  
this requirement for submitting reports electronically to  
WebFIRE. Owners or operators who claim that some of the  
information being submitted for performance tests is  
confidential business information (CBI) must submit a complete  
ERT file including information claimed to be CBI on a compact  
disk or other commonly used electronic storage media (including,  
but not limited to, flash drives) to the EPA. The electronic  
media must be clearly marked as CBI and mailed to U.S.  
EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD  
C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file  
with the CBI omitted must be submitted to EPA via CDX as  
described earlier in this paragraph. At the discretion of the  
delegated authority, you must also submit these reports,  
including the confidential business information, to the  
delegated authority in the format specified by the delegated  
authority.

(i) Within 60 days after the date of completing each CEMS  
(CO and Hg) performance evaluation test, as defined in §63.2 and  
required by this subpart, you must submit the relative accuracy

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test audit data electronically into EPA's Central Data Exchange by using the Electronic Reporting Tool as described in paragraph (h) of this section. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically ~~intoto~~ EPA's ~~WebFIRE database~~CDX.

(j) Within 60 days after the reporting periods ending on March 31, June 30, September 30, and December 31, you must transmit quarterly reports to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). For each reporting period, the quarterly reports must include all of the calculated 30 day rolling average values based on the daily CEMS (CO and Hg) and CPMS (PM CPMS output, scrubber pH, scrubber liquid flow rate, scrubber pressure drop) data.

§63.7555 What records must I keep?

(a)— You must keep records according to paragraphs (a) (1) and (2) of this section.

(1)— A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance

report that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(2) — Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in §63.10(b)(2)(viii).

(b) — For each CEMS, COMS, and continuous monitoring system you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) — Records described in §63.10(b)(2)(vii) through (xi).

(2) — Monitoring data for continuous opacity monitoring system during a performance evaluation as required in §63.6(h)(7)(i) and (ii).

(3) — Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(4) — Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).

(5) — Records of the date and time that each deviation started and stopped. —.

(c) — You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits, such as opacity, pressure drop, pH, and operating load, to show continuous

compliance with each emission limit and operating limit that applies to you.

(d)— For each boiler or process heater subject to an emission limit in Table 1,~~2~~ or ~~122~~ to this subpart, you must also keep the applicable records in paragraphs (d)(1) through (~~89~~) of this section.

(1)— You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2)— If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to ~~§41241.3(b)(1) and (2)~~, you must keep a record ~~which~~that documents how the secondary material meets each of the legitimacy criteria.— If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to §241.3(b) (~~24~~), you must keep records as to how the operations that produced the fuel ~~satisfies~~satisfy the definition of processing in §241.2.— If the fuel received a non-waste determination pursuant to the petition process submitted under §241.3(c), you must keep a record that documents how the fuel satisfies the requirements of the petition process. Units exempt from the incinerator standards under section 129(g)(1) of

the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream do not need to maintain the records described in this paragraph (d)(2).

(3)— You must keep records of monthly hours of operation by each boiler or process heater that meets the definition of limited-use boiler or process heater.

(4)— A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 7 of §63.7530, that were done to demonstrate continuous compliance with the hydrogen chloride emission limit, for sources that demonstrate compliance through performance testing.— For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of hydrogen chloride emission rates, using Equation ~~10~~11 of §63.7530, that were done to demonstrate compliance with the hydrogen chloride emission limit.— Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or hydrogen chloride emission rates. —You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or hydrogen chloride emission rate, for each boiler and process heater.

(5)— A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of §63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing.— For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation ~~11~~12 of §63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. —You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. —However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(6)— If, consistent with §63.7515(b) and (c), you choose to stack test less frequently than annually, you must keep annual records that document that your emissions in the previous stack test(s) were less than 75 percent of the applicable emission limit~~7~~ (or, in specific instances noted in Tables 1 and 2 to this subpart, less than the applicable emission limit), and

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document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year.

(7)— Records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment.

(8)— Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.7500(a)(3), including corrective actions to restore the malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(9) A copy of all calculations and supporting documentation of maximum total selected metals fuel input, using Equation 9 of §63.7530, that were done to demonstrate continuous compliance with the total selected metals emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of total selected metals emission rates, using Equation 13 of §63.7530, that were done to demonstrate compliance with the total selected metals

emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum total selected metals fuel input or total selected metals emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate total selected metals fuel input, or total selected metals emission rates, for each boiler and process heater.

(e)– If you elect to average emissions consistent with §63.7522, you must additionally keep a copy of the emission averaging implementation plan required in §63.7522(g), all calculations required under §63.7522, including monthly records of heat input or steam generation, as applicable, and monitoring records consistent with §63.7541.

(f)– If you elect to use emission credits from energy conservation measures to demonstrate compliance according to §63.7533, you must keep a copy of the Implementation Plan required in §63.7533(d) and copies of all data and calculations used to establish credits according to §63.7533(b), (c), and (f).

(g)– If you elected to demonstrate that the unit meets the specificationsspecification for ~~hydrogen sulfide and~~ mercury for



the other gas 1 subcategory and you cannot submit a signed certification under §63.7545(g) because the constituents could exceed the ~~specifications~~specification, you must maintain monthly records of the calculations and results of the fuel ~~specifications~~specification for mercury ~~and hydrogen sulfide~~ in Table 6.

(h)—If you operate a unit designed to burn natural gas, refinery gas, or other gas 1 fuel that is subject to this subpart, and you use an alternative fuel other than natural gas, refinery gas, gaseous fuel subject to another subpart under this part, or other gas 1 fuel, you must keep records of the total hours per calendar year that alternative fuel is burned.

(i) For each startup or shutdown event, you must maintain records that boiler operators have completed training for startup and shutdown procedures.

§63.7560 In what form and how long must I keep my records?

(a)— Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b)— As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c)— You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).— You can keep the records off site for the remaining 3 years.

#### **Other Requirements and Information**

##### §63.7565 What parts of the General Provisions apply to me?

Table 10 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

##### §63.7570 Who implements and enforces this subpart?

(a)— This subpart can be implemented and enforced by EPA, or a delegated authority such as your Statestate, local, or tribal agency.— If the EPA Administrator has delegated authority to your Statestate, local, or tribal agency, then that agency (as well as EPA) has the authority to implement and enforce this subpart.— You should contact your EPA Regional Office to find out if this subpart is delegated to your Statestate, local, or tribal agency.

(b)— In delegating implementation and enforcement authority of this subpart to a Statestate, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs

(b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the ~~State~~state, local, or tribal agency, however, EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1)– Approval of alternatives to the non-opacity emission limits and work practice standards in §63.7500(a) and (b) under §63.6(g).

(2)– Approval of alternative opacity emission limits in §63.7500(a) under §63.6(h)(9).

(3)– Approval of major change to test methods in Table 5 to this subpart under §63.7(e)(2)(ii) and (f) and as defined in §63.90, and alternative analytical methods requested under §63.7521(b)(2).

(4)– Approval of major change to monitoring under §63.8(f) and as defined in §63.90, and approval of alternative operating parameters under §63.7500(a)(2) and §63.7522(g)(2).

(5)– Approval of major change to recordkeeping and reporting under §63.10(e) and as defined in §63.90.

§63.7575 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2 (the General Provisions), and in this section as follows:

30-day rolling average means the arithmetic mean of all valid data from 30 successive operating days that is calculated for each operating day using the data from that operating day and the previous 29 operating days.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Annual heat input means the heat input for the 12 months preceding the compliance demonstration.

Average annual heat input rate means annual heat input divided by the hours of operation for the 12 months preceding the compliance demonstration.

Bag leak detection system means a group of instruments that are capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. —A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Benchmarking means a process of comparison against standard or average.

Biodiesel means a mono-akyl ester derived from biomass and conforming to ASTM D6751-08, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels (incorporated by reference, see §63.14).

Biomass or bio-based solid fuel means any biomass-based solid fuel that is not a solid waste.— This includes, but is not limited to, wood residue; wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (e.g., almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds. —This definition of biomass is not intended to suggest that these materials are or are not solid waste.

Blast furnace gas fuel-fired boiler or process heater means an industrial/commercial/institutional boiler or process heater that receives 90 percent or more of its total annual gas volume from blast furnace gas.

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Boiler means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. ~~Controlled flame combustion refers to a steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled.~~ A device combusting solid waste, as defined in §241.3, is not a boiler unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g) (1) of the Clean Air Act. ~~Waste heat boilers~~ that use only natural gas, refinery gas, or other gas 1 fuels for supplemental fuel are excluded from this definition.

Boiler system means the boiler and associated components, such as, the feed water system, the combustion air system, the fuel system (including burners), blowdown system, combustion control system, and energy consuming systems.

Calendar year means the period between January 1 and December 31, inclusive, for a given year.

Coal means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by ASTM D388 (incorporated by reference, see §63.14), coal refuse, and petroleum coke. ~~For the purposes of this subpart, this definition of "coal" includes synthetic fuels derived from coal~~

for creating useful heat, including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. ~~Coal~~ derived gases are excluded from this definition.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

Commercial/institutional boiler means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide steam and/or hot water.

Common stack means the exhaust of emissions from two or more affected units through a single flue. ~~Affected units with~~ a common stack may each have separate air pollution control systems located before the common stack, or may have a single air pollution control system located after the exhausts come together in a single flue.

Cost-effective energy conservation measure means a measure that is implemented to improve the energy efficiency of the boiler or facility that has a payback (return of investment) period of 2 years or less.

Daily block average means the arithmetic mean of all valid emission concentrations or parameter levels recorded when a unit is operating measured over the 24-hour period from 12 am (midnight) to 12 am (midnight).

Deviation.

(1)– Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i)– Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard; or

(ii)– Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

(2) –A deviation is not always a violation.– The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

Dioxins/furans means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.



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Distillate oil means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by ASTM D396 (incorporated by reference, see §63.14).

Dry scrubber means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition. ~~—A dry scrubber is a dry control system.~~

Dutch oven means a unit having a refractory-walled cell connected to a conventional boiler setting. ~~—Fuel materials are introduced through an opening in the roof of the ~~Dutch~~dutch oven and burn in a pile on its floor. Fluidized bed boilers are not part of the dutch oven design category.~~

Electric utility steam generating unit means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. ~~—A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility~~

power distribution system for sale is considered an electric utility steam generating unit. To be "capable of combusting" fossil fuels, an EGU would need to have these fuels allowed in their operating permits and have the appropriate fuel handling facilities on-site or otherwise available (e.g., coal handling equipment, including coal storage area, belts and conveyers, pulverizers, etc.; oil storage facilities). In addition, fossil fuel-fired EGU means any EGU that fired fossil fuel for more than 10.0 percent of the average annual heat input in any 3 consecutive calendar years or for more than 15.0 percent of the annual heat input during any one calendar year after [COMPLIANCE DATE OF THE FINAL EGU RULE].

Electrostatic precipitator (ESP) means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper. ~~An electrostatic precipitator is usually a dry control system.~~

Emission credit means emission reductions above those required by this subpart. ~~Emission credits generated may be used to comply with the emissions limits.— Credits may come from~~

pollution prevention projects that result in reduced fuel use by affected units. ~~—~~Shutdowns cannot be used to generate credits.

Energy assessment means the following only as this term is used in Table 3 to this subpart.

(1)~~—~~ Energy assessment for facilities with affected boilers and process heaters using less than 0.3 trillion Btu per year heat input will be ~~one day in length maximum.~~ 8 technical labor hours in length maximum, but may be longer at the discretion of the owner or operator of the affected source. The boiler system and energy use system accounting for at least 50 percent of the energy output will be evaluated to identify energy savings opportunities, within the limit of performing ~~a one-day~~ an 8-hour energy assessment.

(2)~~—~~ The Energy assessment for facilities with affected boilers and process heaters using 0.3 to 1.0 trillion Btu per year will be ~~3 days~~ 24 technical labor hours in length maximum.~~—,~~ but may be longer at the discretion of the owner or operator. The boiler system and any energy use system accounting for at least 33 percent of the energy output will be evaluated to identify energy savings opportunities, within the limit of performing a ~~3-day~~ 24-hour energy assessment.

(3)– In the Energy assessment for facilities with affected boilers and process heaters using greater than 1.0 trillion Btu per year, the boiler system and any energy use system accounting for at least 20 percent of the energy output will be evaluated to identify energy savings opportunities.

Energy management practices means the set of practices and procedures designed to manage energy use that are demonstrated by the facility's energy policies, a facility energy manager and other staffing responsibilities, energy performance measurement and tracking methods, an energy saving goal, action plans, operating procedures, internal reporting requirements, and periodic review intervals used at the facility.

Energy use system includes, but is not limited to, process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning –systems; hot ~~heater~~water systems; building envelop; and lighting.

Equivalent means the following only as this term is used in Table 6 to this subpart:

(1)– An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite

fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) — An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) — An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) — An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) — An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. — If the sample analysis plan calls for determining metals (especially the mercury, selenium, or arsenic) using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing these metals. — On the other hand, if metals analysis is done on an “as received” basis, a separate

aliquot can be dried to determine moisture content and the metals concentration mathematically adjusted to a dry basis.

(6)– An equivalent pollutant (mercury, hydrogen chloride, ~~hydrogen sulfide~~) determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for the pollutant and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 6 to this subpart for the same purpose.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse. –A fabric filter is a dry control system.

Federally enforceable means all limitations and conditions that are enforceable by the EPA Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable ~~State~~state implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed boiler means a boiler utilizing a fluidized bed combustion process. – that is not a pulverized coal boiler.

Fluidized bed combustion means a process where a fuel is burned in a bed of granulated particles, which are maintained in a mobile suspension by the forward flow of air and combustion products.

Fuel cell means a boiler type in which the fuel is dropped onto suspended fixed grates and is fired in a pile. —The refractory-lined fuel cell uses combustion air preheating and positioning of secondary and tertiary air injection ports to improve boiler efficiency. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, and suspension burners are not part of the fuel cell subcategory.

Fuel type means each category of fuels that share a common name or classification.— Examples include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, residual oil. —Individual fuel types received from different suppliers are not considered new fuel types.

Gaseous fuel includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. —Blast furnace gas is exempted from this definition.

Heat input means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or

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exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

Heavy Liquid includes residual oil and any other liquid fuel not classified as a light liquid.

Hourly average means the arithmetic average of at least four CMS data values representing the four 15-minute periods in an hour~~—~~, or at least two 15-minute data values during an hour when CMS calibration, quality assurance, or maintenance activities are being performed.

Hot water heater means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210 degrees Fahrenheit (99 degrees Celsius). Hot water boilers (i.e., not generating steam) combusting gaseous or liquid fuel with a heat input capacity of less than 1.6 million Btu per hour are included in this definition. Hot water heater also means a tankless unit that provides on demand hot water.

Hybrid suspension grate boiler means a boiler designed with air distributors to spread the fuel material over the entire



width and depth of the boiler combustion zone. The fuel combusted in these units exceed a moisture content of 40 percent on an as-fired basis. The drying and much of the combustion of the fuel takes place in suspension, and the combustion is completed on the grate or floor of the boiler. Fluidized bed, dutch oven, and pile burner designs are not part of the hybrid suspension grate boiler design category.

Industrial boiler means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam and/or hot water.

Light liquid includes distillate oil, biodiesel or vegetable oil.

Limited-use boiler or process heater means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable limit of no more than 876 hours per year of operation.

~~Liquid fuel subcategory includes any boiler or process heater of any design that burns more than 10 percent liquid fuel and less than 10 percent solid fuel, based on the total annual heat input to the unit.~~

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Liquid fuel includes, but is not limited to, distillate oil, residual oil, on-spec used oil, ~~and biodiesel~~ and vegetable oil.

Load fraction means the actual heat input of the boiler or process heater divided by the average operating load determined according to Table 7 to this subpart.

Metal process furnaces include natural gas-fired annealing furnaces, preheat furnaces, reheat furnaces, aging furnaces, heat treat furnaces, and homogenizing furnaces.

Million Btu (MMBtu) means one million British thermal units.

Minimum activated carbon injection rate means load fraction (percent) multiplied by the lowest hourly average activated carbon injection rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Minimum pressure drop means the lowest hourly average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber effluent pH means the lowest hourly average sorbent liquid pH measured at the inlet to the wet

| scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

Minimum scrubber liquid flow rate means the lowest hourly average liquid flow rate (e.g., to the PM scrubber or to the acid gas scrubber) measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum scrubber pressure drop means the lowest hourly average scrubber pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

Minimum sorbent injection rate means load fraction (percent) multiplied by the lowest hourly average sorbent injection rate for each sorbent measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Minimum total secondary electric power means the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the electrostatic precipitator measured according to Table 7 to this

subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

Natural gas means:

(1) — A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) — Liquid petroleum gas, as defined in ASTM D1835 (incorporated by reference, see §63.14); or

(3) — A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. — Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 mega joules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot); or

(4) — Propane or propane derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure  $C_3H_8$ .

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the boiler or process heater unit. ~~It is not necessary for fuel to be combusted for the entire 24-hour period.~~

Other combustor means a unit designed to burn solid fuel that is not classified as a dutch oven, fluidized bed, fuel cell, hybrid suspension grate boiler, pulverized coal boiler, stoker, sloped grate, or suspension boiler as defined in this subpart.

Other gas 1 fuel means a gaseous fuel that is not natural gas or refinery gas and does not exceed the maximum concentration of 40 micrograms/cubic meters of mercury ~~and 4 parts per million, by volume, of hydrogen sulfide.~~

Oxygen analyzer system means all equipment required to determine the oxygen content of a gas stream and used to monitor oxygen in the boiler flue gas or firebox. This definition includes oxygen trim systems. The source owner or operator must install, calibrate, maintain, and operate the oxygen analyzer system in accordance with the manufacturer's recommendations.

Oxygen trim system means a system of monitors that is used to maintain excess air at the desired level in a combustion

device. A typical system consists of a flue gas oxygen and/or carbon monoxide monitor that automatically provides a feedback signal to the combustion air controller.

Particulate matter (PM) means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an approved alternative method.

Period of ~~natural~~-gas curtailment or supply interruption means a period of time during which the supply of ~~natural~~ gaseous fuel to an affected facility is halted for reasons beyond the control of the facility.— The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. —An increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility.

Pile burner means a boiler design incorporating a design where the anticipated biomass fuel has a high relative moisture content. Grates serve to support the fuel, and underfire air flowing up through the grates provides oxygen for combustion, cools the grates, promotes turbulence in the fuel bed, and fires the fuel. The most common form of pile burning is the dutch oven.

Process heater means an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters include units heating hot water as a process heat transfer medium. Process heaters are devices in which the combustion gases do not come into direct contact with process materials. —A device combusting solid waste, as defined in §241.3, is not a process heater unless the device is exempt from the definition of a solid waste incineration unit as provided in section 129(g)(1) of the Clean Air Act. —Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves. Waste heat process heaters that use only natural

gas, refinery gas, or other gas 1 fuels for supplemental fuel are excluded from this definition.

Pulverized coal boiler means a boiler in which pulverized coal or other solid fossil fuel is introduced into an air stream that carries the coal to the combustion chamber of the boiler where it is fired in suspension.

Qualified energy assessor means ~~someone~~:

(1) Someone who has demonstrated capabilities to evaluate ~~a set of the typical~~ energy savings opportunities ~~available in opportunity areas~~ for steam generation and major energy using systems, including, but not limited to:

~~(1)~~ i) Boiler combustion management.

~~(2)~~ ii) Boiler thermal energy recovery, including

~~(i)~~ A) Conventional feed water economizer,

~~(ii)~~ B) Conventional combustion air preheater, and

~~(iii)~~ C) Condensing economizer.

~~(3)~~ iii) Boiler blowdown thermal energy recovery.

~~(4)~~ iv) Primary energy resource selection, including

~~(i)~~ A) Fuel (primary energy source) switching, and

~~(ii)~~ B) Applied steam energy versus direct-fired energy

versus electricity.

~~(5)~~ v) Insulation issues.



~~(6)–vi)~~ vi) Steam trap and steam leak management.

~~(7)–vi)~~ vi) Condensate recovery.

~~(8)–viii)~~ viii) Steam end-use management.

~~(9)–Improving steam turbine operations and reducing steam demand.~~

~~(10)–Effective utilization of waste heat and use of proper process heating methods.~~

~~(11)–Specific steam end-use systems.~~

2) Capabilities and knowledge includes, but is not limited

to:

~~(1)–i)~~ i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.

~~(2)–ii)~~ ii) Familiarity with operating and maintenance practices for steam or process heating systems.

~~(3)–iii)~~ iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.

~~(4)–iv)~~ iv) Additional process heating system opportunities including effective utilization of waste heat and use of proper process heating methods.

~~(5)–v)~~ v) Boiler-steam turbine cogeneration systems.

~~(6)~~ vi) Industry specific steam end-use systems.

Refinery gas means any gas that is generated at a petroleum refinery and is combusted. ~~—Refinery gas includes natural gas when the natural gas is combined and combusted in any proportion with a gas generated at a refinery. —Refinery gas includes gases generated from other facilities when that gas is combined and combusted in any proportion with gas generated at a refinery.~~

Residential boiler means a boiler used in a dwelling containing four or fewer family units to provide heat and/or hot water. This definition includes boilers used primarily to provide heat and/or hot water for a dwelling containing four or fewer families located at an institutional facility (e.g., university campus, military base, church grounds) or commercial/industrial facility (e.g., farm).

Residual oil means crude oil, and all fuel oil numbers 4, 5 and 6, as defined in ASTM D396-10 (incorporated by reference, see §63.14(b)).

Responsible official means responsible official as defined in §70.2.

Shutdown means the period that begins when a unit last operates at 25 percent load and ending with a state of no fuel combustion in the unit.

Sloped grate means a unit where the solid fuel is fed to the top of the grate from where it slides downwards; while sliding the fuel first dries and then ignites and burns. The ash is deposited at the bottom of the grate. Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a sloped grate design.

Solid fossil fuel includes, ~~and~~but is not limited to, coal, coke, petroleum coke, and tire derived fuel.

Solid fuel means any solid fossil fuel or biomass or bio-based solid fuel.

Startup means the period between the state of no combustion in the unit to the period where the unit first achieves 25 percent load (i.e., a cold start).

Steam output means (1) ~~for~~For a boiler that produces steam for process or heating only (no power generation), the energy content in terms of MMBtu of the boiler steam output, ~~and~~ (2) for a boiler that cogenerates process steam and electricity (also known as combined heat and power~~-(CHP))~~), the total energy output, which is the sum of the energy content of the steam exiting the turbine and sent to process in MMBtu and the energy of the electricity generated converted to MMBtu at a rate of 10,000 Btu per kilowatt-hour generated (10 MMBtu per

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~~megawatt-hour~~), and (3) for a boiler that generates only electricity, the alternate output-based emission limits would be calculated using Equations 16 through 20 of this section, as appropriate:

(a) For emission limits for boilers in the solid fuel subcategory use Equation 16 of this section:

$$EL_{OBE} = EL_T \times 12.7 \text{ MMBtu/Mwh} \quad (\text{Eq. 16})$$

Where:

$EL_{OBE}$  = Emission limit in units of pounds per megawatt-hour.

$EL_T$  = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(b) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn coal use Equation 17 of this section:

$$EL_{OBE} = EL_T \times 12.2 \text{ MMBtu/Mwh} \quad (\text{Eq. 17})$$

Where:

$EL_{OBE}$  = Emission limit in units of pounds per megawatt-hour.

$EL_T$  = Appropriate emission limit from Table 1 or 2 of this subpart in units of pounds per million Btu heat input.

(c) For PM and CO emission limits for boilers in one of the subcategories of units designed to burn biomass use Equation 18 of this section:

$$EL_{OBE} = EL_T \times 13.9 \text{ MMBtu/Mwh} \quad (\text{Eq. 18})$$

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Where:

EL<sub>OBE</sub> = Emission limit in units of pounds per megawatt-hour.

EL<sub>T</sub> = Appropriate emission limit from Table 1 or 2 of this  
subpart in units of pounds per million Btu heat input.

(d) For emission limits for boilers in the one of the  
subcategories of units designed to burn liquid fuels use

Equation 19 of this section:

$$\text{EL}_{\text{OBE}} = \text{EL}_{\text{T}} \times 13.8 \text{ MMBtu/Mwh} \quad (\text{Eq. 19})$$

Where:

ELOBE = Emission limit in units of pounds per megawatt-hour.

EL<sub>T</sub> = Appropriate emission limit from Table 1 or 2 of this  
subpart in units of pounds per million Btu heat input.

(e) For emission limits for boilers in the Gas 2  
subcategory use Equation 20 of this section:

$$\text{EL}_{\text{OBE}} = \text{EL}_{\text{T}} \times 10.4 \text{ MMBtu/Mwh} \quad (\text{Eq. 20})$$

Where:

EL<sub>OBE</sub> = Emission limit in units of pounds per megawatt-hour.

EL<sub>T</sub> = Appropriate emission limit from Table 1 or 2 of this  
subpart in units of pounds per million Btu heat input.

Stoker means a unit consisting of a mechanically operated fuel feeding mechanism, a stationary or moving grate to support the burning of fuel and admit under-grate air to the fuel, an overfire air system to complete combustion, and an ash discharge

system. ~~—~~This definition of stoker includes air swept stokers. There are two general types of stokers: underfeed and overfeed. Overfeed stokers include mass feed and spreader stokers.

Fluidized bed, dutch oven, pile burner, hybrid suspension grate, suspension burners, and fuel cells are not considered to be a stoker design.

Stoker/sloped grate/other unit designed to burn kiln dried biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and is not in the stoker/sloped grate/other units designed to burn wet biomass subcategory.

Stoker/sloped grate/other unit designed to burn wet biomass means the unit is in the units designed to burn biomass/bio-based solid subcategory that is either a stoker, sloped grate, or other combustor design and any of the biomass/bio-based solid fuel combusted in the unit exceeds 20 percent moisture.

Suspension ~~boiler~~burner means a unit designed to feed the fuel by means of fuel distributors.— The distributors inject air at the point where the fuel is introduced into the boiler in order to spread the fuel material over the boiler width. ~~—~~The drying (and much of the combustion) occurs while the material is

suspended in air. ~~—The combustion of the fuel material is completed on a grate or floor below.—~~ Suspension boilers almost universally are designed to have high heat release rates to dry quickly the wet fuel as it is blown into the boilers. Fluidized bed, dutch oven, pile burner, and hybrid suspension grate units are not part of the suspension burner subcategory.

Temporary boiler means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. ~~—A boiler is not a temporary boiler if any one of the following conditions exists:~~

- (1)~~—~~ The equipment is attached to a foundation.
- (2) ~~—~~The boiler or a replacement remains at a location for more than 12 consecutive months.~~—~~ Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.
- (3)~~—~~ The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.

(4) — The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

———Total selected metals means the combination of the following metallic hazardous air pollutants: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

Tune-up means adjustments made to a boiler in accordance with procedures supplied by the manufacturer (or an approved specialist) to optimize the combustion efficiency.

Unit designed to burn biomass/bio-based solid subcategory includes any boiler or process heater that burns at least 10 percent biomass or bio-based solids on an annual heat input basis in combination with solid fossil fuels, liquid fuels, or gaseous fuels.

Unit designed to burn coal/solid fossil fuel subcategory includes any boiler or process heater that burns any coal or other solid fossil fuel alone or at least 10 percent coal or other solid fossil fuel on an annual heat input basis in combination with liquid fuels, gaseous fuels, or less than 10 percent biomass and bio-based solids on an annual heat input basis.



Unit designed to burn gas 1 subcategory includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels; with the exception of liquid fuels burned for periodic testing not to exceed a combined total of 48 hours during any calendar year, or during periods of gas curtailment and gas supply emergencies.

Unit designed to burn gas 2 (other) subcategory includes any boiler or process heater that is not in the unit designed to burn gas 1 subcategory and burns any gaseous fuels either alone or in combination with less than 10 percent coal/solid fossil fuel, less than 10 percent biomass/bio-based solid fuel, and less than 10 percent liquid fuels on an annual heat input basis.

Unit designed to burn heavy liquid subcategory means a unit in the unit designed to burn liquid subcategory where at least 10 percent of the heat input from liquid fuels on an annual heat input basis comes from heavy liquids.

Unit designed to burn light liquid subcategory means a unit in the unit designed to burn liquid subcategory that is not part of the unit designed to burn heavy liquid subcategory.

Unit designed to burn liquid subcategory includes any boiler or process heater that burns any liquid fuel, but less than 10 percent coal/solid fossil fuel and less than 10 percent

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biomass/bio-based solid fuel on an annual heat input basis,  
either alone or in combination with gaseous fuels. ~~—~~Gaseous fuel  
boilers and process heaters that burn liquid fuel for periodic  
testing of liquid fuel, maintenance, or operator training, not  
to exceed a combined total of 48 hours during any calendar year  
or during periods of maintenance, operator training, or testing  
of liquid fuel, not to exceed a combined total of 48 hours  
during any calendar year are not included in this definition.  
Gaseous fuel boilers and process heaters that burn liquid fuel  
during periods of gas curtailment or gas supply emergencies of  
any duration are also not included in this definition.

Unit designed to burn liquid fuel that is a non-continental  
unit means an industrial, commercial, or institutional boiler or  
process heater designed to burn liquid fuel located in the State  
of Hawaii, the Virgin Islands, Guam, American Samoa, the  
Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Unit designed to burn solid fuel subcategory means any  
boiler or process heater that burns ~~any~~only solid ~~fuel~~  
~~alone~~fuels or at least 10 percent solid fuel on an annual heat  
input basis in combination with liquid fuels or gaseous fuels.

Vegetable oil means oils extracted from vegetation.

Voluntary Consensus Standards or VCS mean technical standards (e.g., materials specifications, test methods, sampling procedures, business practices) developed or adopted by one or more voluntary consensus bodies. —EPA/Office of Air Quality Planning and Standards, by precedent, has only used VCS that are written in English.— Examples of VCS bodies are: American Society of Testing and Materials (ASTM 100 Barr Harbor Drive, P.O. Box CB700, West Conshohocken, Pennsylvania 19428-B2959, (800) 262-1373, <http://www.astm.org>), American Society of Mechanical Engineers (ASME ASME, Three Park Avenue, New York, NY 10016-5990, (800) 843-2763, <http://www.asme.org>), International Standards Organization (ISO 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, <http://www.iso.org/iso/home.htm>), Standards Australia (AS Level 10, The Exchange Centre, 20 Bridge Street, Sydney, GPO Box 476, Sydney NSW 2001, + 61 2 9237 6171 <http://www.stadards.org.au>), British Standards Institution (BSI, 389 Chiswick High Road, London, W4 4AL, United Kingdom, +44 (0)20 8996 9001, <http://www.bsigroup.com>), Canadian Standards Association (CSA 5060 Spectrum Way, Suite 100, Mississauga, Ontario L4W 5N6, Canada, 800-463-6727, <http://www.csa.ca>), European Committee for Standardization (CEN CENELEC Management Centre Avenue Marnix 17

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B-1000 Brussels, Belgium +32 2 550 08 11, <http://www.cen.eu/cen>), and German Engineering Standards (VDI VDI Guidelines Department, P.O. Box 10 11 39 40002, Duesseldorf, Germany, +49 211 6214-230, <http://www.vdi.eu>). —The types of standards that are not considered VCS are standards developed by: the United States, e.g. , California (CARB) and Texas (TCEQ); industry groups, such as American Petroleum Institute (API), Gas Processors Association (GPA), and Gas Research Institute (GRI); and other branches of the U.S. government, e.g., Department of Defense (DOD) and Department of Transportation (DOT). —This does not preclude EPA from using standards developed by groups that are not VCS bodies within their rule. —When this occurs, EPA has done searches and reviews for VCS equivalent to these non-EPA methods.

Waste heat boiler means a device that recovers normally unused energy and converts it to usable heat. —Waste heat boilers are also referred to as heat recovery steam generators. This definition includes both fired and unfired waste heat boilers.

Waste heat process heater means an enclosed device that recovers normally unused energy and converts it to usable heat. Waste heat process heaters are also referred to as recuperative

process heaters. This definition includes both fired and unfired waste heat process heaters.

Wet scrubber means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter or to absorb and neutralize acid gases, such as hydrogen chloride. ~~—~~A wet scrubber creates an aqueous stream or slurry as a byproduct of the emissions control process.

Work practice standard means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the Clean Air Act.

#### **Tables to Subpart DDDDD of Part 63**

**Table 1 to Subpart DDDDD of Part 63—Emission Limits for New or Reconstructed Boilers and Process ~~Heaters~~<sup>a</sup> Heaters (Units with heat input capacity of 10 million Btu per hour or greater)**

As stated in §63.7500, you must comply with the following applicable emission limits:

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
1. Units in all subcategories designed to burn solid fuel	a. <del>Particulate Matter</del> <u>a. Hydrogen Chloride</u>	0.0011 <u>0.22</u> lb per MMBtu of heat input <del>(30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).</del>	0.0011; <del>(30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).</del> 0.025 lb per MMBtu of steam output or 0.28 lb per MWh	<del>Collect</del> <u>For M26A,</u> collect a minimum of <u>31</u> dscm per run; <u>for M26 collect</u> a minimum of 120 liters per run
	b. <del>Hydrogen Chloride</del> <u>Mercury</u>	0.0022 <u>8.60E-07</u> lb per MMBtu of heat input.	0.0021 <u>9.4E-07</u> lb per MMBtu of steam output or 1.1 <u>E-05</u> lb per MWh	For <del>M26A</del> <u>M29,</u> collect a minimum of <u>44</u> dscm per run; for <del>M26</del> <u>M30A or M30B,</u> collect a minimum sample as specified in the method; for <u>ASTM D6784<sup>b</sup></u> collect a minimum of <u>60</u> liters per run <u>4</u> dscm.

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<u>-2. Pulverized coal boilers designed to burn coal/solid fossil fuel</u>	<u>e. <del>Mercurya.</del> Carbon monoxide (CO) (or CEMS)</u>	<u><del>3.5E-06 lb per MMBtu of heat input.</del> 9 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (28 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<u><del>3.4E-06</del> 0.0074 lb per MMBtu of steam output or 0.092 lb per MWh; 3-run average.</u>	<u>For M29, collect a minimum of 1 dsem per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784<sup>b</sup> collect a minimum of 2 dsem. 1 hr minimum sampling time, use a span value of 20 ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<del>2. Units designed to burn pulverized coal/solid fossil fuel</del>	<del>a. Carbon monoxide (CO)</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>12 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.0013 lb per MMBtu of heat input; or (2.8E-05<sup>a</sup> lb per MMBtu of heat input).</u>	<del>0.01</del> <u>0.0013 lb per MMBtu of steam output or 0.016 lb per MWh; or (2.8E-05<sup>a</sup> lb per MMBtu of steam output or 3.5E-04<sup>a</sup> lb per MWh).</u>	<del>1-hr</del> <u>Collect a minimum sampling time, use a span value of 30 ppmv.</u> <u>3 dscm per run</u>
3. Stokers designed to burn coal/solid fossil fuel	<del>b. Dioxins/Furans</del> <u>a. CO (or CEMS)</u>	<del>0.003 ng/dscm (TEQ)</del> <u>19 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (34 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling</u>	<u>2.8E-12 (TEQ)</u> <u>0.017 lb per MMBtu of steam output or 0.20 lb per MWh; 3-run average.</u>	<del>Collect a 1 hr</del> <u>minimum sampling time, use a span value of 4 dscm per run</u> <u>30 ppmv for Method 10.</u>



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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		average) .		
<del>3. Stokers designed to burn coal/solid fossil fuel</del>	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>6 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.028 lb per MMBtu of heat input; or (2.2E-05<sup>a</sup> lb per MMBtu of heat input) .</u>	<del>0.005</del> <u>0.028 lb per MMBtu of steam output or 0.35 lb per MWh; or (3.0E-05<sup>a</sup> lb per MMBtu of steam output or 2.7E-04<sup>a</sup> lb per MWh) .</u>	<del>1-hr</del> <u>Collect a minimum sampling time; use a span value of 20 ppmv</u> <u>2 dscm per run</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<u>4. Fluidized bed units designed to burn coal/solid fossil fuel</u>	<del>b.</del> <u>Dioxins/Furans</u> <del>a.</del> <u>CO (or CEMS)</u>	<u>0.003 ng/dscm (TEQ) 17 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (59 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<u>2.8E-12 (TEQ) 0.015 lb per MMBtu of steam output or 0.18 lb per MWh; 3-run average.</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run 40 ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<del>4. Fluidized bed units designed to burn coal/solid fossil fuel</del>	<del>a. CO<sub>b</sub>. Filterable Particulate Matter (or Total Selected Metals)</del>	<del>18 ppm by volume on a dry basis corrected to 3 percent oxygen. 0.0011 lb per MMBtu of heat input; or (1.7E-05<sup>a</sup> lb per MMBtu of heat input).</del>	<del>0.020.0012 lb per MMBtu of steam output or 0.014 lb per MWh; or (1.8E-05<sup>a</sup> lb per MMBtu of steam output or 2.1E-04<sup>a</sup> lb per MWh) .</del>	<del>1 hr</del> Collect a minimum <u>sampling time</u> , use a span value of <u>40 ppmv</u> <u>4 dscm per run</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
5. <u>Stokers/sloped grate/others designed to burn wet biomass fuel</u>	<del>b.</del> <u>Dioxins/Furans</u> a. <u>CO (or CEMS)</u>	<u>0.002 ng/dscm (TEQ) 590 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (410 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<u>1.8E-12 (TEQ) 0.56 lb per MMBtu of steam output or 6.5 lb per MWh; 3-run average.</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run 600 ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<del>5. Stokers designed to burn biomass/bio-based solids</del>	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>160 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.029 lb per MMBtu of heat input; or (2.6E-05 lb per MMBtu of heat input).</u>	<del>0.130.034 lb per MMBtu of steam output or 0.41 lb per MWh; or (2.7E-05 lb per MMBtu of steam output or 3.7E-04 lb per MWh) .</del>	<del>1-hr</del> <u>Collect a minimum sampling time, use a span value of 400 ppmv<sub>2</sub> dscm per run</u>
<del>6. Stokers/sloped grate/others designed to burn kiln-dried biomass fuel</del>	<del>b. Dioxins/Furans</del> <u>a. CO</u>	<del>0.005 ng/dscm (TEQ)</del> <u>250 ppm by volume on a dry basis corrected to 73 percent oxygen.</u>	<del>4.4E-12 (TEQ)</del> <u>0.23 lb per MMBtu of steam output or 2.8 lb per MWh.</u>	<del>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run</del> <u>400 ppmv for Method 10.</u>
<del>6. Fluidized bed units designed to burn biomass/bio-based solids</del>	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>260 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.32 lb per MMBtu of heat input; or (4.0E-03 lb per</u>	<del>0.180.37 lb per MMBtu of steam output or 4.5 lb per MWh; or (4.2E-03 lb per MMBtu of steam output or 0.056 lb per MWh) .</del>	<del>1-hr</del> <u>Collect a minimum sampling time, use a span value of 500 ppmv<sub>2</sub> dscm per run</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>MMBtu of heat input).</u>		
<u>7. Fluidized bed units designed to burn biomass/bio-based solids</u>	<del>b. Dioxins/Furans</del> <u>a. CO (or CEMS)</u>	<del>0.02 ng/dscm (TEQ)</del> <u>230 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (180 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<del>1.8E-11 (TEQ)</del> <u>0.22 lb per MMBtu of steam output or 2.6 lb per MWh; 3-run average.</u>	<del>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run</del> <u>400 ppmv for Method 10.</u>
<del>7. Suspension burners/Dutch Ovens designed to burn biomass/bio-based solids</del>	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>470 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.0098 lb per MMBtu of heat input; or (4.2E-05<sup>a</sup></u>	<del>0.45</del> <u>0.012 lb per MMBtu of steam output or 0.14 lb per MWh; or (5.4E-05<sup>a</sup> lb per MMBtu of steam output or 5.9E-04<sup>a</sup> lb</u>	<del>1 hr</del> <u>Collect a minimum sampling time, use a span value of 1000 ppmv 3 dscm per run</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>lb per MMBtu of heat input).</u>	<u>per MWh) .</u>	
<u>8. Suspension burners designed to burn biomass/bio-based solids</u>	<u>b. <del>Dioxins/Furans</del>a. CO (or CEMS)</u>	<u>0.2 ng/dscm (TEQ)58 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (1,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<u>1.8E-10 (TEQ)0.046 lb per MMBtu of steam output or 0.64 lb per MWh; 3-run average;</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run 100 ppmv for Method 10.</u>
<u>8. Fuel cells designed to burn biomass/bio-based solids</u>	<u>a. CO<sub>2</sub> b. Filterable Particulate Matter (or Total Selected Metals)</u>	<u>470 ppm by volume on a dry basis corrected to 3 percent oxygen.0.051 lb per MMBtu of</u>	<u>0.230.052 lb per MMBtu of steam output or 0.71 lb per MWh; or (0.0012 lb per MMBtu of steam</u>	<u>1 hrCollect a minimum sampling time, use a span value of 1000 ppmv1 dscm per run</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>heat input; or (1.1E-03 lb per MMBtu of heat input).</u>	<u>output or 0.016 lb per MWh) .</u>	
<u>9. Dutch Ovens/Pile burners designed to burn biomass/bio-based solids</u>	<u>b. <del>Dioxins/Furans</del> a. CO (or CEMS)</u>	<u>0.003 ng/dscm (TEQ) 810 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (440 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<u>2.86E-12 (TEQ) 0.89 lb per MMBtu of steam output or 8.9 lb per MWh; 3-run average.</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run 1000 ppmv for Method 10.</u>



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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
9. Hybrid suspension/grate units designed to burn biomass/bio-based solids	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>1,500 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.036 lb per MMBtu of heat input; or (4.1E-05 lb per MMBtu of heat input).</u>	<del>0.84</del> <u>0.050 lb per MMBtu of steam output or 0.51 lb per MWh; or (5.5E-05 lb per MMBtu of steam output or 5.8E-04 lb per MWh).</u>	<del>1 hr</del> <u>Collect a minimum sampling time, use a span value of 3000 ppmv 1 dscm per run</u>
10. Fuel cell units designed to burn biomass/bio-based solids	<del>b. Dioxins/Furans</del> <u>a. CO</u>	<del>0.2 ng/dscm (TEQ)</del> <u>210 ppm by volume on a dry basis corrected to 73 percent oxygen.</u>	<del>1.8E-10 (TEQ)</del> <u>0.29 lb per MMBtu of steam output or 2.3 lb per MWh.</u>	<del>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run</del> <u>500 ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<del>10. Units designed to burn liquid fuel</del>	<del>a.b.</del> <u>Filterable Particulate Matter (or Total Selected Metals)</u>	<del>0.0013011 lb per MMBtu of heat input (30-day rolling average for residual oil-fired units 250; or (4.9E-05<sup>a</sup> lb per MMBtu/hr or greater, 3-run average for other units). of heat input).</del>	<del>0.001; (30-day rolling average for residual oil-fired units 250 MMBtu/hr or greater, 3-run average for other units).</del> <u>0.030 lb per MMBtu of steam output or 0.16 lb per MWh; or (8.6E-05<sup>a</sup> lb per MMBtu of steam output or 6.9E-04<sup>a</sup> lb per MWh) .</u>	Collect a minimum of <u>31</u> dscm per run

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<u>11. Hybrid suspension grate boiler designed to burn biomass/bio-based solids</u>	<del>b. Hydrogen Chloride</del> <u>a. CO</u> (or CEMS)	<del>0.0032 lb per MMBtu of heat input</del> <u>1,500 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (730 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<del>0.003</del> <u>1.80 lb per MMBtu of steam output or 17 lb per MWh; 3-run average.</u>	<u>For M26A: Collect a 1 hr minimum sampling time, use a span value of 1-dsem per run; 3000 ppmv for M26, collect a minimum of 60 liters per run</u> <u>Method 10.</u>
	<del>c. Mercury</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>2.1E-07</del> <u>0.026 lb per MMBtu of heat input; or (4.9E-04<sup>a</sup> lb per MMBtu of heat input).</u>	<del>0.2E-06</del> <u>0.033 lb per MMBtu of steam output or 0.37 lb per MWh; or (6.2E-04<sup>a</sup> lb per MMBtu of steam output or 6.9E-03<sup>a</sup> lb per MWh) .</u>	Collect <del>enough volume to meet an in-stack detection limit data quality objective</del> <u>a minimum of 0.10 ug/3 dscm per run</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<u>12. Units designed to burn liquid fuel</u>	<del>d. CO<sub>a</sub>.</del> <u>Hydrogen Chloride</u>	<del>3 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.0012 lb per MMBtu of heat input.</u>	<del>0.0026</del> <u>0.0013 lb</u> per MMBtu of steam output or <u>0.017 lb per MWh</u>	<del>1-hr minimum sampling time; use a span value of 3 ppmv.</del> <u>For M26A: Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run</u>
	<del>e.</del> <u>Dioxins/Furans<sup>b</sup>.</u> <u>Mercury</u>	<del>0.002 ng/dscm (TEQ) corrected to 7 percent oxygen.</del> <u>4.9E-07<sup>a</sup> lb per MMBtu of heat input.</u>	<del>4.6E-12 (TEQ)</del> <u>5.4E-07<sup>a</sup> lb per MMBtu of steam output or 6.8E-06<sup>a</sup> lb per MWh</u>	<del>Collect</del> <u>For M29, collect a minimum of 4 dscm per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784<sup>b</sup> collect a minimum of 4 dscm.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<del>1113.</del> Units designed to burn <u>heavy</u> liquid fuel <del>located in non-continental States and territories</del>	a. <u>Particulate Matter</u> <del>CO</del> (or CEMS)	<del>0.0013 lb per MMBtu of heat input (30-day rolling average for residual oil-fired units 250 MMBtu/hr or greater, 3-run average for other units);</del> <u>10 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (18 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<del>0.001; (30-day rolling average for residual oil-fired units 250 0091 lb per MMBtu/hr of steam output or greater, 0.11 lb per MWh; 3-run average for other units);</del> <u>.</u>	<del>Collect a 1 hr</del> minimum <u>sampling time, use a span value of 3 dscm per run</u> <u>30 ppmv for Method 10.</u>
	<u>b. Hydrogen Chloride</u> <u>Filterable Particulate</u>	<del>0.0032</del> <u>0.013</u> lb per MMBtu of heat input.	<del>0.003</del> <u>0.015</u> lb per MMBtu of steam output or <u>0.18 lb per</u>	<u>For M26A:</u> Collect a minimum of <u>42</u> dscm per

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
	<u>Matter</u>		<u>MWh.</u>	run; for M26, collect a minimum of 60 liters per run.
<u>14. Units designed to burn light liquid fuel</u>	<u>c. Mercury<sup>a</sup>. CO (or CEMS)</u>	<u>7.8E-07 lb per MMBtu of heat input. 3 ppm by volume on a dry basis corrected to 3 percent oxygen; or (60 ppm by volume on a dry basis corrected to 3 percent oxygen, 1-day block average).</u>	<u>8.0E-07 0.0031 lb per MMBtu of steam output or 0.033 lb per MWh.</u>	For M29, collect a minimum of 3 dscm per run; for M30B, collect a minimum sample as specified in the method; for ASTM D6784 <sup>b</sup> collect a minimum of 3 dscm. 1 hr minimum sampling time, use a span value of 10 ppmv for Method 10.
	<u>d. CO<sup>b</sup>. Filterable Particulate Matter</u>	<u>51 ppm by volume on a dry basis corrected to 3 percent oxygen. 0.0011<sup>a</sup> lb per</u>	<u>0.043 0.0015<sup>a</sup> lb per MMBtu of steam output or 0.016 lb per MWh.</u>	<u>1 hr</u> Collect a minimum sampling time, use a span value of <u>100 ppmv</u> 3 dscm per

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>MMBtu of heat input for light liquid.</u>		<u>run</u>
<u>15. Units designed to burn liquid fuel located in non-continental states and territories</u>	<u>e. <del>Dioxins/Furans</del> a. <u>CO</u></u>	<u>0.002 ng/dscm (TEQ) 18 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average based on stack test (91 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-hour rolling average based on CEM) .</u>	<u>4.6E-12(TEQ) 0.017 lb per MMBtu of steam output or 0.20 lb per MWh; 3-run average.</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 3 dscm per run 40 ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<del>12. Units designed to burn gas 2 (other) gases</del>	<del>a.b.</del> <u>Filterable</u> Particulate Matter	0. <del>0067</del> <u>0080</u> lb per MMBtu of heat input <del>(30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).</del>	<del>.004; (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).</del> <u>0.0087 lb per MMBtu of steam output or 0.11 lb per MWh.</u>	Collect a minimum of <del>14</del> dscm per run
<u>16. Units designed to burn gas 2 (other) gases</u>	<del>b. Hydrogen Chloride</del> <u>a. CO</u>	<u>0.0017 lb per MMBtu of heat input. 4 ppm by volume on a dry basis corrected to 3 percent oxygen.</u>	<u>.0030.005 lb per MMBtu of steam output or 0.031 lb per MWh.</u>	<u>For M26A, Collect a 1 hr minimum sampling time, use a span value of 1 dscm per run; 10 ppmv for M26, collect a minimum of 60 liters per run Method 10.</u>



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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
	<del>e. Mercury</del> <sup>b</sup> . <u>Hydrogen Chloride</u>	<del>7.9E-06</del> 0.0017 lb per MMBtu of heat input.	<del>2.0E-07</del> 0.0029 lb per MMBtu of steam output or 0.018 lb per MWh	For <del>M29</del> M26A, <u>Collect a minimum of 1 dscm per run; for M26,</u> collect a minimum of <del>1 dscm per run;</del> for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 <sup>b</sup> collect a minimum of <del>2 dscm</del> 120 liters per run
	<del>d. CO</del> <sup>c</sup> . <u>Mercury</u>	<u>3 ppm by volume on a dry basis corrected to 3 percent oxygen.</u> <del>7.9E-06</del> lb per MMBtu of heat input.	<del>0.002</del> 1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh	<u>1-hr minimum sampling time, use a span value of 10 ppmv.</u> For <del>M29,</del> collect a minimum of <u>3 dscm per run; for</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Or the emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
				<u>M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784<sup>b</sup> collect a minimum of 3 dscm.</u>
	<u>e. <del>Dioxins/Furans</del><sup>d</sup>. Filterable Particulate Matter (or Total Selected Metals)</u>	<u>0.08 ng/dscm (TEQ) corrected to 7 percent oxygen. 0.0067 lb per MMBtu of heat input; or (2.4E-04 lb per MMBtu of heat input).</u>	<u>4.1E-12 (TEQ) 0.012 lb per MMBtu of steam output or 0.070 lb per MWh; or (4.0E-04 lb per MMBtu of steam output or 0.0025 lb per MWh).</u>	Collect a minimum of <u>41</u> dscm per run

<sup>a</sup> If your affected source is a new or reconstructed affected source that commenced construction or reconstruction after June 4, 2010, and before [INSERT THE DATE 60 DAYS AFTER THIS FINAL RULE IS PUBLISHED IN THE FEDERAL REGISTER], you may comply with the emission limits in Table 12 to this subpart until [INSERT THE DATE THREE YEARS AFTER THE PUBLICATION OF THIS FINAL RULE IN THE FEDERAL REGISTER]. On and after [INSERT THE DATE THREE YEARS AFTER PUBLICATION OF THIS FINAL RULE IN

THE FEDERAL REGISTER], you must comply with the emission limits in Table 1 to this subpart.

a If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to §63.7515 if all of the other provision of §63.7515 are met. For all other pollutants that do not contain a footnote "a", your performance tests for this pollutant for at least 2 consecutive years must show that your emissions are at or 75 percent of this limit in order to qualify for skip testing.

b Incorporated by reference, see §63.14.

**Table 2 to Subpart DDDDD of Part 63—Emission Limits for Existing Boilers and Process Heaters (Units with heat input capacity of 10 million Btu per hour or greater)**

As stated in §63.7500, you must comply with the following applicable emission limits:

If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del> ...	Using this specified sampling volume or test run duration...
1. Units in all subcategories designed to burn solid fuel	a. <u>Particulate Matter</u> <u>Hydrogen Chloride</u>	0.039022 lb per MMBtu of heat input <del>(30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250</del>	0.038; <del>(30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).</del> 0.025 lb per MMBtu of steam output or 0.28 lb per MWh	<u>For M26A, Collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<del>MMBtu/hr).</del>		
	b. <del>Hydrogen Chloride</del> <u>Mercury</u>	<del>0.035</del> <u>3.1E-06</u> lb per MMBtu of heat input.	<del>0.043.5E-06 lb per MMBtu of steam output or 4.0E-05 lb per MWh</del>	For <del>M26A</del> , <del>Collect a minimum of 1 dsem per run;</del> <u>for M26M29</u> , collect a minimum of <del>60 liters per run</del> <u>3 dscm per run;</u> <u>for M30A or M30B,</u> collect a minimum sample as specified in the method; for <u>ASTM D6784<sup>b</sup></u> collect a minimum of <u>3 dscm.</u>
<u>-2. Pulverized coal boilers designed to burn coal/solid fossil fuel</u>	<u>e. <del>Mercury</del> a. CO (or CEMS)</u>	<u>4.6E-06 lb per MMBtu of heat input</u> <del>41 ppm by volume on a dry basis corrected to 3</del>	<u>4.5E-06</u> <del>0.035 lb per MMBtu of steam output or 0.42 lb per MWh; 3-run average.</del>	<del>For M29, collect a minimum of 1 dsem per run;</del> <u>for M30A or M30B, collect a minimum sample as specified in the</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>percent oxygen, 3-run average; or (28 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>		<u>method; for ASTM D6784# collect a minimum of 2 dscm 1 hr minimum sampling time, use a span value of 100 ppmv for Method 10.</u>
<u>2. Pulverized coal units designed to burn pulverized coal/solid fossil fuel</u>	<u>a. CO</u> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<u>160 ppm by volume on a dry basis corrected to 3 percent oxygen.</u> <u>0.044 lb per MMBtu of heat input; or (5.9E-05 lb per MMBtu of heat input).</u>	<u>0.14</u> <u>0.045 lb per MMBtu of steam output or 0.54 lb per MWh; or (6.0E-05 lb per MMBtu of steam output or 7.3E-04 lb per MWh).</u>	<u>1 hr</u> <u>Collect a minimum sampling time; use a span value of 300 ppmv 1 dscm per run.</u>
<u>3. Stokers designed to burn coal/solid fossil fuel</u>	<u>b. Dioxins/Furans</u> <u>a. CO (or CEMS)</u>	<u>0.004 ng/dscm (TEQ)</u> <u>220 ppm by volume on a dry basis corrected</u>	<u>3.7E-12 (TEQ)</u> <u>0.20 lb per MMBtu of steam output or 2.3 lb per MWh; 3-run average</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		to <u>73</u> percent oxygen, <u>3-run</u> average; or (34 ppm by volume on a dry basis corrected to <u>3</u> percent oxygen, 10-day rolling average).		<del>run</del> <u>400 ppmv</u> for Method <u>10</u> .
<del>3. Stokers designed to burn coal/solid fossil fuel</del>	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>270 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.028 lb per MMBtu of heat input; or (8.3E-05 lb per MMBtu of heat input).</u>	<del>0.25-0.030 lb per MMBtu of steam output or 0.35 lb per MWh; or (8.8E-05 lb per MMBtu of steam output or 0.0011 lb per MWh).</del>	<del>1-hr</del> <u>Collect a minimum sampling time; use a span value of 500 ppmv<sub>2</sub> dscm per run.</u>
<u>4. Fluidized bed units designed to burn coal/solid fossil</u>	<del>b.</del> <u>Dioxins/Furans</u> <u>a. CO (or CEMS)</u>	<u>0.003 ng/dscm (TEQ)</u> <u>56 ppm by volume on a dry basis</u>	<del>2.8E-12</del> <u>(TEQ) 0.049 lb per MMBtu of steam output or 0.57 lb per</u>	<u>Collect a 1 hr minimum sampling time, use a span value</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<u>fuel</u>		corrected to <u>73</u> percent oxygen, <u>3-run average</u> ; or <u>(59 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average)</u> .	<u>MWh; 3-run average</u>	of <u>4 dscm per run</u> <u>100 ppmv for Method 10</u> .
<del>4. Fluidized bed units designed to burn coal/ solid fossil fuel</del>	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>82 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.088 lb per MMBtu of heat input; or (1.7E-05 lb per MMBtu of heat input).</u>	<del>0.08-0.092 lb per MMBtu of steam output or 1.1 lb per MWh; or (1.8E-05 lb per MMBtu of steam output or 2.1E-04 lb per MWh).</del>	<del>1 hr</del> <u>Collect a minimum sampling time; use a span value of 200 ppmv 1 dscm per run.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
5. <u>Stokers/sloped grate/others designed to burn wet biomass fuel</u>	<del>b.</del> <u>Dioxins/Furans</u> a. <u>CO (or CEMS)</u>	<u>0.002 ng/dscm (TEQ) 790 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (410 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<u>1.8E-12(TEQ) 0.72 lb per MMBtu of steam output or 8.7 lb per MWh; 3-run average.</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run 1000 ppmv for Method 10.</u>



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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits ( <del>lb per MMBtu of steam output</del> )...	Using this specified sampling volume or test run duration...
5. <del>Stokers designed to burn biomass/bio-based solid</del>	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>490 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.029 lb per MMBtu of heat input; or (5.7E-05 lb per MMBtu of heat input).</u>	<del>0.35</del> <u>0.034</u> lb per MMBtu of steam output or 0.41 lb per MWh; or (6.6E-05 lb per MMBtu of steam output or 8.0E-04 lb per MWh) .	<del>1-hr</del> <u>Collect</u> a minimum <u>sampling time</u> ; <u>use a span value</u> of <del>1000 ppmv</del> <u>2 dscm</u> per run.
6. <u>Stokers/sloped grate/others designed to burn kiln-dried biomass fuel</u>	<del>b. Dioxins/Furans</del> <u>a. CO</u>	<del>0.005 ng/dscm (TEQ)</del> <u>250 ppm by volume on a dry basis corrected to 73 percent oxygen.</u>	<del>4.4E-12 (TEQ)</del> <u>0.23</u> lb per MMBtu of steam output or 2.8 lb per MWh.	<del>Collect a 1 hr</del> minimum <u>sampling time</u> , use a <u>span value</u> of <del>4 dscm per run</del> <u>500 ppmv</u> for Method <u>10</u> .

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
6. <del>Fluidized bed units designed to burn biomass/bio-based solid</del>	<del>a. CO<sub>b</sub>.</del> <u>Filterable Particulate Matter (or Total Selected Metals)</u>	<del>430 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.32 lb per MMBtu of heat input; or (4.0E-03 lb per MMBtu of heat input).</u>	<del>0.28</del> <u>0.37</u> lb per MMBtu of steam output or 4.5 lb per MWh; or (0.0046 lb per MMBtu of steam output or 0.056 lb per MWh) .	<del>1-hr</del> <u>Collect</u> a minimum <u>sampling time</u> ; <del>use a span value of 850 ppmv</del> <u>1 dscm per run.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
<u>7. Fluidized bed units designed to burn biomass/bio-based solid</u>	<del>b.</del> <u>Dioxins/Furans</u> <del>a.</del> <u>CO (or CEMS)</u>	<u>0.02 ng/dscm (TEQ) 370 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (180 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).</u>	<u>1.8E-11(TEQ) 0.36 lb per MMBtu of steam output or 4.1 lb per MWh; 3-run average.</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run 500 ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
7. <u>Suspension burners/Dutch Ovens designed to burn biomass/bio-based solid</u>	<u>a. CO<sub>b</sub>. Filterable Particulate Matter (or Total Selected Metals)</u>	<u>470 ppm by volume on a dry basis corrected to 3 percent oxygen. 0.11 lb per MMBtu of heat input; or (0.0012 lb per MMBtu of heat input).</u>	<u>0.450.14 lb per MMBtu of steam output or 1.6 lb per MWh; or (0.0015 lb per MMBtu of steam output or 0.017 lb per MWh).</u>	<u>1-hr</u> Collect a minimum <u>sampling time</u> ; <u>use a span value of 1000 ppmv</u> <u>1 dscm per run</u> .
8. <u>Suspension burners designed to burn biomass/bio-based solid</u>	<u>b. <del>Dioxins/Furans</del>a. CO (or CEMS)</u>	<u>0.2 ng/dscm (TEQ) 58 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (1,400 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-</u>	<u>1.8E-10(TEQ)0.046 lb per MMBtu of steam output or 0.64 lb per MWh; 3-run average;</u>	<u>Collect a 1 hr</u> minimum <u>sampling time</u> , <u>use a span value of 4 dscm per run</u> <u>100ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>day rolling average).</u>		
8. <del>Fuel cells designed to burn biomass/bio-based solid</del>	a. <del>CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>690 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.051 lb per MMBtu of heat input; or (0.0011 lb per MMBtu of heat input).</u>	<del>0.34</del> <u>0.052 lb per MMBtu of steam output or 0.71 lb per MWh; or (0.0012 lb per MMBtu of steam output or 0.016 lb per MWh).</u>	<del>1 hr</del> <u>Collect a minimum sampling time, use a span value of 1300 ppmv 1 dscm per run.</u>
9. <u>Dutch Ovens/Pile burners designed to burn biomass/bio-based solid</u>	<u>b. Dioxins/Furans</u> <u>a. CO (or CEMS)</u>	<u>4 ng/dscm (TEQ)</u> <u>810 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average; or (440 ppm by volume on a dry basis corrected to 3 percent</u>	<u>3.5E-09 (TEQ)</u> <u>0.89 lb per MMBtu of steam output or 8.9 lb per MWh; 3-run average.</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run 1000 ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>oxygen, 10-day rolling average).</u>		
<del>9. Hybrid suspension/grate units designed to burn biomass/ bio-based solid</del>	<del>a. CO</del> <u>b. Filterable Particulate Matter (or Total Selected Metals)</u>	<del>3,500 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.036 lb per MMBtu of heat input; or (2.4E-04 lb per MMBtu of heat input).</u>	<del>2.0</del> <u>0.050 lb per MMBtu of steam output or 0.51 lb per MWh; or (3.4E-04 lb per MMBtu of steam output or 0.0034 lb per MWh).</u>	<del>1 hr</del> <u>Collect a minimum sampling time, use a span value of 7000 ppmv 1 dscm per run.</u>
<u>10. Fuel cell units designed to burn biomass/ bio-based solid</u>	<del>b. Dioxins/Furans</del> <u>a. CO</u>	<del>0.2 ng/dscm (TEQ)</del> <u>1,500 ppm by volume on a dry basis corrected to 73 percent oxygen.</u>	<del>1.8E-10 (TEQ)</del> <u>3.2 lb per MMBtu of steam output or 17 lb per MWh.</u>	<del>Collect a 1 hr minimum sampling time, use a span value of 4 dscm per run</del> <u>2000 ppmv for Method 10.</u>
<del>10. Units designed to burn liquid fuel</del>	<del>a.b.</del> <u>Filterable Particulate Matter (or Total Selected Metals)</u>	<del>0.0075</del> <u>0.33 lb per MMBtu of heat input (30-day rolling average for residual oil-fired</u>	<del>0.0073; (30-day rolling average for residual oil-fired units 250 MMBtu/hr or greater, 3-run average for other</del>	Collect a minimum of 1 dscm per run.

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits ( <del>lb per MMBtu of steam output</del> )...	Using this specified sampling volume or test run duration...
		<del>units</del> 250; or (4.9E-05 lb per MMBtu <del>hr</del> or greater, 3-run average for other units) of heat input).	<del>units</del> 0.090 lb per MMBtu of steam output or 0.46 lb per MWh; or (1.4E-04 lb per MMBtu of steam output or 6.9E-04 lb per MWh) .	
<u>11. Hybrid suspension grate units designed to burn biomass/ bio-based solid</u>	<del>b. Hydrogen Chloride</del> <u>a. CO</u> (or CEMS)	<del>0.00033 lb per MMBtu of heat input</del> 3,900 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-run average; or (730 ppm by volume on a dry basis corrected to 3 percent oxygen, 10-day rolling average).	<del>0.003</del> 3.9 lb per MMBtu of steam output or 43 lb per MWh; 3-run average;	<del>For M26A, collect a 1 hr minimum sampling time, use a span value of 1 dsem per run;</del> 5000 ppmv for M26, collect a minimum of 200 liters per run Method 10.
	<del>e. Mercury</del> <u>b.</u>	3.5E-06 0.44	<del>3.3E-06</del> 0.55 lb	For M29,

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
	<u>Filterable Particulate Matter (or Total Selected Metals)</u>	lb per MMBtu of heat input; <u>or</u> $(4.9\text{E}-04^a)$ lb per MMBtu of heat input).	<u>per MMBtu of steam output or 6.2 lb per MWh; or <math>(6.2\text{E}-04^a)</math> lb per MMBtu of steam output or <math>6.9\text{E}-03^a</math> lb per MWh).</u>	<del>collect</del> <u>Collect</u> a minimum of 1 dscm per run; <del>for M30A or M30B collect a minimum sample as specified in the method, for ASTM D6784# collect a minimum of 2 dscm.</del>
<u>12. Units designed to burn liquid fuel</u>	<u>d. CO<sub>a</sub>. Hydrogen Chloride</u>	<u>10 ppm by volume on a dry basis corrected to 3 percent oxygen.</u> <u>0.0012 lb per MMBtu of heat input.</u>	<u>0.00830.0015 lb per MMBtu of steam output or 0.017 lb per MWh</u>	<u>1-hr minimum sampling time, use a span value of 20 ppmv. For M26A, collect a minimum of 1 dscm per run; for M26, collect a minimum of 120 liters per run.</u>
	<u>e. Dioxins/Furans<sub>b</sub>. Mercury</u>	<u>4 ng/dscm (TEQ) corrected to 7 percent</u>	<u>9.2E-09 (TEQ) 3.3E-05 lb per MMBtu</u>	<u>Collect</u> <del>For</del> <u>M29, collect a</u>



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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<del>oxygen</del> <u>2.6E-05 lb per MMBtu of heat input.</u>	<u>of steam output or 3.6E-04 lb per MWh.</u>	minimum of <del>12</del> dscm per run; for M30A or M30B <u>collect a minimum sample as specified in the method, for ASTM D6784<sup>b</sup> collect a minimum of 2 dscm.</u>
<del>1113.</del> Units designed to burn <u>heavy</u> liquid fuel <del>located in non-continental States and territories</del>	a. <u>Particulate Matter</u> <u>CO (or CEMS)</u>	<u>0.0075 lb per MMBtu of heat input (30-day rolling average for residual oil-fired units 250 MMBtu/hr or greater, 3-run average for other units); 10 ppm by volume on a dry basis corrected to 3 percent oxygen, 3-</u>	<u>0.0073; (30-day rolling average for residual oil-fired units 250 0091 lb per MMBtu/hr of steam output or greater, 0.11 lb per MWh; 3-run average for other units); .</u>	<u>Collect a 1 hr minimum sampling time, use a span value of 1 dscm per run 20 ppmv for Method 10.</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del> ...	Using this specified sampling volume or test run duration...
		<u>run</u> <u>average; or</u> <u>(18 ppm by</u> <u>volume on a</u> <u>dry basis</u> <u>corrected</u> <u>to 3</u> <u>percent</u> <u>oxygen, 10-</u> <u>day rolling</u> <u>average).</u>		
	<del>b. Hydrogen Chloride.</del> <u>Filterable Particulate Matter</u>	<del>0.00033062</del> lb per MMBtu of heat input.	<del>0.0030.075 lb</del> per MMBtu of steam output or <u>0.86 lb per MWh.</u>	<del>For M26A, collect</del> Collect a minimum of 1 dscm per run; <del>for M26, collect a minimum of 200 liters per run.</del>
14. Units designed to burn light liquid fuel	<del>c. Mercury.</del> <u>a. CO</u> (or CEMS)	<del>7.8E-07 lb per MMBtu of heat input.</del> <u>7 ppm by volume on a dry basis corrected to 3 percent oxygen; or (60 ppm by volume on a dry basis</u>	<del>8.0E-070.0071</del> lb per MMBtu of steam output or <u>0.076 lb per MWh.</u>	<del>For M29, collect a minimum of 1 dscm per run;</del> <u>for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784<sup>a</sup> collect a minimum of 2</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>corrected to 3 percent oxygen, 1-day block average).</u>		<u>dscm</u> <del>1 hr</del> minimum sampling time, use a span value of 10 ppmv for Method 10.
	<del>d. CO</del> <u>b. Filterable Particulate Matter</u>	<del>160 ppm by volume on a dry basis corrected to 3 percent oxygen.</del> <u>0.0034 lb per MMBtu of heat input.</u>	<del>0.13</del> <u>0.0045 lb per MMBtu of steam output or 0.047 lb per MWh.</u>	<del>1 hr</del> <u>Collect a minimum sampling time; use a span value of 300 ppmv</u> <del>3 dscm per run.</del>
<u>15. Units designed to burn liquid fuel located in non-continental states and territories</u>	<del>e. Dioxins/Furans</del> <u>a. CO (or CEMS)</u>	<del>4 ng/dscm (TEQ)</del> <u>18 ppm by volume on a dry basis corrected to 73 percent oxygen, 3-run average based on stack test (91 ppm by volume on a dry basis corrected</u>	<del>9.2E-09 (TEQ)</del> <u>0.017 lb per MMBtu of steam output or 0.20 lb per MWh; 3-run average.</u>	<del>Collect a 1 hr</del> <u>minimum sampling time, use a span value of 4 dscm per run</u> <del>40 ppmv for Method 10.</del>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
		<u>to 3 percent oxygen, 3-hour rolling average based on CEM).</u>		
<del>12. Units designed to burn gas 2 (other) gases</del>	<del>a.b. Filterable</del> Particulate Matter	<del>0.043</del> <u>0.0080</u> lb per MMBtu of heat input <del>(30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).</del>	<del>0.026; (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).</del> <u>0.0097</u> lb per MMBtu of steam output or <u>0.11</u> lb per MWh.	Collect a minimum of <del>12</del> dscm per run.
<u>16. Units designed to burn gas 2 (other) gases</u>	<del>b. Hydrogen Chloride</del> <u>a. CO</u>	<del>0.0017 lb per MMBtu of heat input.</del> <u>4 ppm by volume on a dry basis corrected to 3 percent oxygen.</u>	<del>0.001</del> <u>0.0050</u> lb per MMBtu of steam output or <u>0.031</u> lb per MWh.	<del>For M26A, collect a 1 hr minimum sampling time, use a span value of 1 dscm per run;</del> <u>10 ppmv for M26, collect a minimum of 60 liters per</u>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
				<del>run</del> Method 10.
	<del>e. Mercury</del> <u>b. Hydrogen Chloride</u>	<del>1.3E-05</del> <u>0.0017</u> lb per MMBtu of heat input.	<del>7.8E-06</del> <u>0.0029</u> lb per MMBtu of steam output or <u>0.018 lb per MWh.</u>	For <del>M29</del> <u>M26A</u> , collect a minimum of 1 dscm per run; for <del>M30A or M30B</del> <u>M26</u> , collect a minimum <del>sample as specified in the method; for ASTM D6784<sup>a</sup> collect a minimum of 2 dscm</del> <u>120 liters per run.</u>
	<del>d. CO</del> <u>c. Mercury</u>	<u>9 ppm by volume on a dry basis corrected to 3 percent oxygen.</u> <del>7.9E-06 lb per MMBtu of heat input.</del>	<del>0.005</del> <u>1.4E-05 lb per MMBtu of steam output or 8.3E-05 lb per MWh.</u>	<u>1-hr minimum sampling time; use a span value of 20 ppmv.</u> <del>For M29, collect a minimum of 2 dscm per run; for M30A or</del>

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	The emissions must not exceed the following <u>alternative</u> output-based limits <del>(lb per MMBtu of steam output)...</del>	Using this specified sampling volume or test run duration...
				<u>M30B, collect a minimum sample as specified in the method; for ASTM D6784<sup>b</sup> collect a minimum of 2 dscm.</u>
	<u>e. <del>Dioxins/Furans</del>. Filterable Particulate Matter (or Total Selected Metals).</u>	<u><del>0.08 ng/dscm (TEQ) corrected to 7 percent oxygen.</del> 0.0067 lb per MMBtu of heat input or (2.4E-04 lb per MMBtu of heat input).</u>	<u><del>3.9E-11 (TEQ)</del> 0.012 lb per MMBtu of steam output or 0.070 lb per MWh; or (4.0E-04 lb per MMBtu of steam output or 0.0025 lb per MWh).</u>	Collect a minimum of <u>41</u> dscm per run.

<sup>a</sup>

<sup>a</sup> If you are conducting stack tests to demonstrate compliance and your performance tests for this pollutant for at least 2 consecutive years show that your emissions are at or below this limit, you can skip testing according to §63.7515 if all of the other provision of §63.7515 are met. For all other pollutants that do not contain a footnote a, your performance tests for this pollutant for at least 2 consecutive years must show that

your emissions are at or 75 percent of this limit in order to qualify for skip testing.

b Incorporated by reference, see §63.14.

**Table 3 to Subpart DDDDD of Part 63—Work Practice Standards**

As stated in §63.7500, you must comply with the following applicable work practice standards:

<b>If your unit is...</b>	<b>You must meet the following...</b>
<u>1. A new or existing boiler or process heater with heat input capacity of less than 5 million Btu per hour in any of the following subcategories: unit designed to burn natural gas, refinery gas or other gas 1 fuels; unit designed to burn gas 2 (other); or unit designed to burn light liquid.</u>	<u>Conduct a tune-up of the boiler or process heater every 5 years as specified in §63.7540.</u>

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If your unit is...	You must meet the following...
<p><del>1.A2.</del> <u>A limited use boiler or process heater; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour</u> <del>or a limited use boiler or process heater.</del> <u>in the unit designed to burn heavy liquid or unit designed to burn solid fuel subcategories; or a new or existing boiler or process heater with heat input capacity of less than 10 million Btu per hour, but equal to or greater than 5 million Btu per hour, in any of the following subcategories: unit designed to burn natural gas, refinery gas or other gas 1 fuels; unit designed to burn gas 2 (other); or unit designed to burn light liquid.</u></p>	<p>Conduct a tune-up of the boiler or process heater biennially as specified in §63.7540.</p>
<p><del>23.</del> <u>A new or existing boiler or process heater</u> <del>in either the Gas 1 or Metal Process Furnace subcategory</del> <u>with heat input capacity of 10 million Btu per hour or greater.</u></p>	<p>Conduct a tune-up of the boiler or process heater annually as specified in §63.7540. <u>Units in either the Gas 1 or Metal Process Furnace subcategories will conduct this tune-up as a work practice for all regulated emissions under this subpart. Units in all other subcategories will conduct this tune-up as a work practice for dioxins/furans.</u></p>
<p><del>34.</del> <u>An existing boiler or process heater located at a major source facility.</u></p>	<p>Must have a one-time energy assessment performed on the major source facility by qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this</p>



If your unit is...	You must meet the following...
	<p>table, satisfies the energy assessment requirement.- The energy assessment must include:</p> <ul style="list-style-type: none"><li>a. A visual inspection of the boiler or process heater system.</li><li>b. An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints;.</li><li>c. An inventory of major <del>energy</del><u>systems</u> consuming <del>systems,</del><u>energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.</u></li><li>d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;.</li><li>e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices;.</li><li>f. A list of major energy conservation measures;.</li><li>g. A list of the energy savings potential of the energy conservation measures identified,<del>and</del>.</li><li>h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those</li></ul>

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If your unit is...	You must meet the following...
	investments.
45. An existing or new unit subject to emission limits in Tables 1, <del>2</del> , or <del>12 of 2</del> <u>to</u> this subpart.	<del>Minimize the unit's startup and shutdown periods following the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.</del> <u>You must employ good combustion practices and demonstrate that good combustion practices are maintained by monitoring O<sub>2</sub> concentrations and optimizing those concentrations as specified by the boiler manufacturer; you must ensure that boiler operators are trained in startup and shutdown procedures, including maintenance and cleaning, safety, control device startup, and procedures to minimize emissions; and you must maintain records during periods of startup and shutdown and include in your compliance reports the O<sub>2</sub> conditions/data for each event, length of startup/shutdown and reason for the startup/shutdown (i.e., normal/routine, problem/malfunction, outage).</u>

**Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters**

As stated in §63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance using . . .	You must meet these operating limits . . .
1. Wet PM scrubber	Maintain the <del>12-hour block</del> <u>30-day rolling</u>

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If you demonstrate compliance using . . .	You must meet these operating limits . . .
control <u>on a boiler not using a PM CPMS.</u>	average pressure drop and the <del>12-hour block</del> <u>30-day rolling</u> average liquid flow rate at or above the lowest <del>1one</del> <u>one</u> -hour average pressure drop and the lowest <del>1one</del> <u>one</u> -hour average liquid flow rate, respectively, measured during the most recent performance test demonstrating compliance with the PM emission limitation according to §63.7530(b) and Table 7 to this subpart.
2. Wet acid gas (HCl) scrubber control <u>on a boiler not using a hydrogen chloride CEMS.</u>	Maintain the <del>12-hour block</del> <u>30-day rolling</u> average effluent pH at or above the lowest <del>1one</del> <u>one</u> -hour average pH and the <del>12-hour block</del> <u>30-day rolling</u> average liquid flow rate at or above the lowest <del>1one</del> <u>one</u> -hour average liquid flow rate measured during the most recent performance test demonstrating compliance with the HCl emission limitation according to §63.7530(b) and Table 7 to this subpart.
3. Fabric filter control on units not <del>required to install and operate</del> <u>using</u> a PM <del>CEMS</del> <u>CPMS</u> .	a.- Maintain opacity to less than or equal to 10 percent opacity (daily block average); or  b.- Install and operate a bag leak detection system according to §63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period.
4. Electrostatic precipitator control on units not <del>required to install and operate</del> <u>using</u> a PM <del>CEMS</del> <u>CPMS</u> .	a. This option is for boilers and process heaters that operate dry control systems (i.e., an ESP without a wet scrubber).- Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block

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If you demonstrate compliance using . . .	You must meet these operating limits . . .
	<p>average); or</p> <p>b. This option is only for boilers and process heaters not subject to PM <del>CEMS</del><u>CPMS</u> or continuous compliance with an opacity limit (i.e., COMS). Maintain the <del>minimum</del><u>30-day rolling average</u> total secondary electric power input of the electrostatic precipitator at or above the operating limits established during the performance test according to §63.7530(b) and Table 7 to this subpart.</p>
5. Dry scrubber or carbon injection control <u>on a boiler not using a mercury CEMS.</u>	Maintain the minimum sorbent or carbon injection rate as defined in §63.7575 of this subpart.
6. Any other add-on air pollution control type on units not <del>required to install and operate using</del> a PM <del>CEMS</del> <u>CPMS</u> .	This option is for boilers and process heaters that operate dry control systems.- Existing and new boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (daily block average).
7. Fuel analysis.	Maintain the fuel type or fuel mixture such that the applicable emission rates calculated according to §63.7530(c) (1), (2) and/or (3) is less than the applicable emission limits.
8. Performance testing.	For boilers and process heaters that demonstrate compliance with a performance test, maintain the operating load of each unit such that <del>is it</del> does not exceed 110 percent of the average operating load recorded during the most recent performance test.
9. <del>Continuous</del> Oxygen <del>Monitoring</del> <u>Analyzer</u> System	For boilers and process heaters subject to a carbon monoxide emission limit that demonstrate compliance with an O <sub>2</sub>

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If you demonstrate compliance using . . .	You must meet these operating limits . . .
	<del>CEMS</del> analyzer system as specified in §63.7525(a), maintain the oxygen level <del>of the stack gas</del> such that it is not below the lowest hourly average oxygen concentration measured during the most recent CO performance test.

**Table 5 to Subpart DDDDD of Part 63—Performance Testing Requirements**

As stated in §63.7520, you must comply with the following requirements for performance testing for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
1. Particulate Matter	a. Select sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1 or A-2 to part 60 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A-2 to part 60 of this chapter, or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	d. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the particulate matter	Method 5 or 17 (positive pressure fabric filters

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<b>To conduct a performance test for the following pollutant . . .</b>	<b>You must . . .</b>	<b>Using . . .</b>
	emission concentration.	must use Method 5D) at 40 CFR part 60, appendix A-3 or A-6 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
2. Hydrogen chloride	a. Select sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas.	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A-2 of this chapter, or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	d. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the hydrogen chloride emission concentration.	Method 26 or 26A (M26 or M26A) at 40 CFR part 60, appendix A-8 of this chapter.
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
3. Mercury	a. Select sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine velocity and	Method 2, 2F, or 2G at 40 CFR part 60, appendix A-1

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<b>To conduct a performance test for the following pollutant . . .</b>	<b>You must . . .</b>	<b>Using . . .</b>
	volumetric flow-rate of the stack gas.	or A-2 of this chapter.
	c. Determine oxygen or carbon dioxide concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A-1 of this chapter, or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	d. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	e. Measure the mercury emission concentration.	Method 29, 30A, or 30B (M29, M30A, or M30B) at 40 CFR part 60, appendix A-8 of this chapter or Method 101A at 40 CFR part 60, appendix B of this chapter, or ASTM Method D6784. <sup>a</sup>
	f. Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology at 40 CFR part 60, appendix A-7 of this chapter.
4. CO	a. Select the sampling ports location and the number of traverse points.	Method 1 at 40 CFR part 60, appendix A-1 of this chapter.
	b. Determine oxygen concentration of the stack gas.	Method 3A or 3B at 40 CFR part 60, appendix A-3 of this chapter, or ASTM D6522-00 (Reapproved 2005), or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	c. Measure the moisture content of the stack gas.	Method 4 at 40 CFR part 60, appendix A-3 of this chapter.
	d. Measure the CO emission	Method 10 at 40 CFR part 60, appendix A-4 of this

<b>To conduct a performance test for the following pollutant . . .</b>	<b>You must . . .</b>	<b>Using . . .</b>
	concentration.	chapter.- Use a span value of 2 times the concentration of the applicable emission limit.
<b>5. Dioxins/Furans</b>	<b>a. Select the sampling ports location and the number of traverse points.</b>	<b>Method 1 at 40 CFR part 60, appendix A-1 of this chapter.</b>
	<b>b. Determine oxygen concentration of the stack gas.</b>	<b>Method 3A or 3B at 40 CFR part 60, appendix A-3 of this chapter, or ASTM D6522-00 (Reapproved 2005)<sup>a</sup>, or ANSI/ASME PTC 19.10-1981.<sup>a</sup></b>
	<b>c. Measure the moisture content of the stack gas.</b>	<b>Method 4 at 40 CFR part 60, appendix A-3 of this chapter.</b>
	<b>d. Measure the dioxins/furans emission concentration.</b>	<b>Method 23 at 40 CFR part 60, appendix A-7 of this chapter.</b>
	<b>e. Multiply the measured dioxins/furans emission concentration by the appropriate toxic equivalency factor.</b>	<b>Table 11 of this subpart.</b>

<sup>a</sup> Incorporated by reference, see §63.14.

#### **Table 6 to Subpart DDDDD of Part 63—Fuel Analysis Requirements**

As stated in §63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources.— However, equivalent methods (as defined in §63.7575) may be used in lieu of the prescribed methods at the discretion of the source owner or operator:



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To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples.	Procedure in §63.7521(c) or ASTM D2234/D2234M <sup>a</sup> (for coal) or <u>EPA 1631 or EPA 1631E or ASTM D6323<sup>a</sup> (for solid), or EPA 821-R-01-013 (for biomass), liquid or solid), or equivalent.</u>
	b. Composite fuel samples.	Procedure in §63.7521(d) or equivalent.
	c. Prepare composited fuel samples.	EPA SW-846-3050B <sup>a</sup> (for solid samples), EPA SW-846-3020A <sup>a</sup> (for liquid samples), ASTM D2013/D2013M <sup>a</sup> (for coal), ASTM D5198 <sup>a</sup> (for biomass), or <del>equivalent.</del> <u>ASTM E829 or EPA 3050 (for solid fuel), or EPA 821-R-01-013 (for liquid or solid), or equivalent.</u>
	d. Determine heat content of the fuel type.	ASTM D5865 <sup>a</sup> (for coal) or ASTM E711 <sup>a</sup> (for biomass), or <u>ASTM D5864 for liquids and other solids, or ASTM D240 or equivalent.</u>
	e. Determine moisture content of the fuel type.	ASTM D3173 <sup>a</sup> <del>or,</del> ASTM E871 <sup>a</sup> , or <u>ASTM D5864, or ASTM D240 or equivalent.</u>
	f. Measure mercury concentration in fuel sample.	ASTM D6722 <sup>a</sup> (for coal), EPA SW-846-7471B <sup>a</sup> (for solid samples), or EPA SW-846-7470A <sup>a</sup> (for liquid samples), or equivalent.
	g. Convert	<u>Equation 8 in §63.7530.</u>

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To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	concentration into units of pounds of <del>pollutant</del> <u>mercury</u> per MMBtu of heat content.	
	<u>h. Calculate the mercury emission rate from the boiler or process heater in units of pounds per million Btu.</u>	<u>Equations 10 and 12 in §63.7530.</u>
2. Hydrogen Chloride	a. Collect fuel samples.	Procedure in §63.7521(c) or ASTM D2234/D2234M <sup>a</sup> (for coal) or ASTM D6323 <sup>a</sup> (for <u>coal or biomass</u> ), or equivalent.
	b. Composite fuel samples.	Procedure in §63.7521(d) or equivalent.
	c. Prepare composited fuel samples.	EPA SW-846-3050B <sup>a</sup> (for solid samples), EPA SW-846-3020A <sup>a</sup> (for liquid samples), ASTM D2013/D2013M <sup>a</sup> (for coal), or ASTM D5198 <sup>a</sup> (for biomass), <u>or ASTM E829 (for solid fuel), or EPA 3050</u> or equivalent.
	d. Determine heat content of the fuel type.	ASTM D5865 <sup>a</sup> (for coal) or ASTM E711 <sup>a</sup> (for biomass), <u>ASTM D5864, ASTM D240</u> or equivalent.
	e. Determine moisture content of the fuel type.	ASTM D3173 <sup>a</sup> or ASTM E871 <sup>a</sup> , or <u>D5864, or ASTM D240</u> or equivalent.

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To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	f. Measure chlorine concentration in fuel sample.	EPA SW-846-9250 <sup>a</sup> , ASTM D6721 <sup>a</sup> , <u>ASTM D4208</u> (for coal), or <u>EPA SW-846-5050<sup>a</sup> or ASTM E776<sup>a</sup> (for biomass), solid fuel), or EPA SW-846-9056 or SW-846-9076 (for solids or liquids) or equivalent.</u>
	g. Convert concentrations into units of pounds of <del>pollutant</del> <u>hydrogen chloride</u> per MMBtu of heat content.	<u>Equation 7 in §63.7530.</u>
	<u>h. Calculate the hydrogen chloride emission rate from the boiler or process heater in units of pounds per million Btu.</u>	<u>Equations 10 and 11 in §63.7530.</u>
3. Mercury Fuel Specification for other gas 1 fuels	a. Measure mercury concentration in the fuel sample:  <del>b. Convert concentration and convert to unit</del> <u>units</u> of micrograms/ <del>per</del> cubic meter.	ASTM D5954 <sup>a</sup> , ASTM D6350 <sup>a</sup> , ISO 6978-1:2003(E) <sup>a</sup> , or ISO 6978-2:2003(E) <sup>a</sup> , or equivalent.
<u>4. Total Selected Metals for solid fuels</u>	<u>a. Collect fuel samples.</u>	<u>Procedure in §63.7521(c) or ASTM D2234/D2234M<sup>a</sup> (for coal) or ASTM D6323<sup>a</sup> (for coal or biomass), or</u>

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To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
		<u>equivalent.</u>
	<u>b. Composite fuel samples.</u>	Procedure in §63.7521(d) or <u>equivalent.</u>
	<u>c. Prepare composited fuel samples.</u>	EPA SW-846-3050B <sup>a</sup> (for solid samples), EPA SW-846-3020A <sup>a</sup> (for liquid samples), ASTM D2013/D2013M <sup>a</sup> (for coal), ASTM D5198 <sup>a</sup> or TAPPI T266 (for biomass), or ASTM E829 (for solid fuel), or EPA 3050 or <u>equivalent.</u>
4. Hydrogen Sulfide Fuel Specification for other gas + fuels	<del>a. Measure total hydrogen sulfide.</del> <del>b. Convert to ppm.</del> <u>d. Determine heat content of the fuel type.</u>	ASTM <del>D4084</del> <sup>a</sup> D5865 <sup>a</sup> (for coal) or ASTM E711 <sup>a</sup> (for biomass), or ASTM D5864 for liquids and other solids, or ASTM D240 or <u>equivalent.</u>
	<u>e. Determine moisture content of the fuel type.</u>	ASTM D3173 <sup>a</sup> or ASTM E871 <sup>a</sup> , or D5864, or ASTM D240 or <u>equivalent.</u>
	<u>f. Measure total selected metals concentration in fuel sample.</u>	ASTM D3683, or ASTM D4606, or ASTM D6357 or EPA 200.8 or or EPA SW-846-6020, or EPA SW-846-6020A, or ASTM E885, or EPA SW-846-6010B, EPA 7060 or EPA 7060A (for arsenic only), or EPA SW-846-7740 (for selenium only), <u></u>

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To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
	g. <u>Convert concentrations into units of pounds of total selected metals per MMBtu of heat content.</u>	<u>Equations 9 in §63.7530.</u>
	h. <u>Calculate the total selected metals emission rate from the boiler or process heater in units of pounds per million Btu.</u>	<u>Equations 10 and 13 in §63.7530.</u>

<sup>a</sup> Incorporated by reference, see §63.14.

**Table 7 to Subpart DDDDD of Part 63—Establishing Operating Limits**

As stated in §63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
1. Particulate matter, <u>total selected metals</u> , or	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum <u>scrubber</u> pressure	(1) Data from the <u>scrubber</u> pressure drop and liquid flow rate monitors and	(a) You must collect <u>scrubber</u> pressure drop and liquid flow rate

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If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
mercury.		drop and minimum flow rate operating limit according to §63.7530 (b)).	the particulate matter or mercury performance test.	data every 15 minutes during the entire period of the performance tests.
				(b) Determine the lowest hourly average <u>scrubber</u> pressure drop and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.

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If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
	b. Electrostatic precipitator operating parameters (option only for units that operate wet scrubbers)) <u>.</u>	i. Establish a site-specific minimum total secondary electric power input according to §63.7530 (b)) <u>.</u>	(1) Data from the voltage and secondary amperage monitors during the particulate matter or mercury performance test <u>.</u>	(a) You must collect secondary voltage and secondary amperage for each ESP cell and calculate total secondary electric power input data every 15 minutes during the entire period of the performance tests; <u>.</u>
				(b) Determine the average total secondary electric power input by computing the hourly averages using all of the 15-minute readings taken during each performance test.
2. Hydrogen Chloride	a. Wet scrubber operating	i. Establish site-specific	(1) Data from the pressure drop, pH, and	(a) You must collect pH and liquid

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If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
	parameters. <u>.</u>	minimum pressure drop, effluent pH, and flow rate operating limits according to §63.7530 (b) <del>)</del> <u>.</u>	liquid flow-rate monitors and the hydrogen chloride performance test. <u>.</u>	flow-rate data every 15 minutes during the entire period of the performance tests <del>;</del> <u>.</u>
				(b) Determine the hourly average pH and liquid flow rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
	b. Dry scrubber operating parameters. <u>.</u>	i. Establish a site-specific minimum sorbent injection rate operating limit according to §63.7530 (b) . If different acid gas	(1) Data from the sorbent injection rate monitors and hydrogen chloride or mercury performance test. <u>.</u>	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests <del>;</del> <u>.</u>



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If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
		sorbents are used during the hydrogen chloride performance test, the average value for each sorbent becomes the site-specific operating limit for that sorbent.		
				(b) Determine the hourly average sorbent injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average of the three test run

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<b>If you have an applicable emission limit for . . .</b>	<b>And your operating limits are based on . . .</b>	<b>You must. . .</b>	<b>Using . . .</b>	<b>According to the following requirements</b>
				averages established during the performance test as your operating limit.- When your unit operates at lower loads, multiply your sorbent injection rate by the load fraction (e.g., for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.

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If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
3. Mercury <del>and dioxins/furans</del>	a. Activated carbon injection.	i. Establish a site-specific minimum activated carbon injection rate operating limit according to §63.7530 (b) <del>)</del> .	(1) Data from the activated carbon rate monitors and mercury <del>and dioxins/furans</del> performance <del>tests</del> <u>test</u> .	(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance tests <del>;</del> .
				(b) Determine the hourly average activated carbon injection rate by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average established during the performance test as your

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If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
				operating limit.- When your unit operates at lower loads, multiply your activated carbon injection rate by the load fraction (e.g., actual heat input divided by heat input during performance test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
4. Carbon monoxide	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to §63.7520.	(1) Data from the oxygen <del>monitor</del> <u>analyzer system</u> specified in §63.7525 (a).	(a) You must collect oxygen data every 15 minutes during the entire period of the performance tests <del>;</del> .

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If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
				(b) Determine the hourly average oxygen concentration by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the lowest hourly average established during the performance test as your minimum operating limit.
5. Any pollutant for which compliance is demonstrated by a performance test.	a. Boiler or process heater operating load.	i. Establish a unit specific limit for maximum operating load according to §63.7520(c).	(1) Data from the operating load monitors or from steam generation monitors.	(a) You must collect operating load or steam generation data every 15 minutes during the entire period of the performance test.

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If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must. . .	Using . . .	According to the following requirements
				(b) Determine the average operating load by computing the hourly averages using all of the 15-minute readings taken during each performance test.
				(c) Determine the average of the three test run averages during the performance test, and multiply this by 1.1 (110 percent) as your operating limit.

**Table 8 to Subpart DDDDD of Part 63—Demonstrating Continuous Compliance**

As stated in §63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

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If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity	a. Collecting the opacity monitoring system data according to §63.7525(c) and §63.7535; and
	b. Reducing the opacity monitoring data to 6-minute averages; and
	c. Maintaining opacity to less than or equal to 10 percent (daily block average).
<u>2. PM CPMS</u>	<u>a. Collecting the PM CPMS output data according to §63.7525;</u>
	<u>b. Reducing the data to 30-day rolling averages; and</u>
	<u>c. Maintaining the 30-day rolling average PM CPMS output data to less than the operating limit established during the performance test according to §63.7530.</u>
<u>23.</u> Fabric Filter Bag Leak Detection Operation	Installing and operating a bag leak detection system according to §63.7525 and operating the fabric filter such that the requirements in §63.7540(a)(9) are met.
<u>34.</u> Wet Scrubber Pressure Drop and Liquid Flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§63.7525 and 63.7535; and
	b. Reducing the data to <del>12-hour block</del> <u>30-day rolling</u> averages; and
	c. Maintaining the <del>12-hour</del> <u>30-day rolling</u> average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to §63.7530(b).
<u>45.</u> Wet Scrubber pH	a. Collecting the pH monitoring system data according to §§63.7525 and 63.7535; and
	b. Reducing the data to <del>12-hour block</del> <u>30-day</u>

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If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
	<u>rolling</u> averages; and
	c. Maintaining the <del>12-hour</del> <u>30-day rolling</u> average pH at or above the operating limit established during the performance test according to §63.7530(b) .
56. Dry Scrubber Sorbent or Carbon Injection Rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§63.7525 and 63.7535; and
	b. Reducing the data to <del>12-hour block</del> <u>30-day rolling</u> averages; and
	c. Maintaining the <del>12-hour</del> <u>30-day rolling</u> average sorbent or carbon injection rate at or above the minimum sorbent or carbon injection rate as defined in §63.7575.
67. Electrostatic Precipitator Total Secondary Electric Power Input	a. Collecting the total secondary electric power input monitoring system data for the electrostatic precipitator according to §§63.7525 and 63.7535; and
	b. Reducing the data to <del>12-hour block</del> <u>30-day rolling</u> averages; and
	c. Maintaining the <del>12-hour</del> <u>30-day rolling</u> average total secondary electric power input at or above the operating limits established during the performance test according to §63.7530(b) .
78. Fuel Pollutant Content	a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to §63.7530(b) or (c) as applicable; and
	b. Keeping monthly records of fuel use according to §63.7540(a) .



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If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
<u>89.</u> Oxygen content	a. Continuously monitor the oxygen content <del>in the combustion exhaust</del> <u>using an oxygen trim system</u> according to §63.7525(a).
	b. Reducing the data to <del>12-hour block</del> <u>30-day rolling</u> averages; and
	c. Maintain the <del>12-hour block</del> <u>30-day rolling</u> average oxygen content <del>in the exhaust</del> at or above the lowest hourly average oxygen level measured during the most recent carbon monoxide performance test.
<u>10. Carbon monoxide emissions</u>	a. <u>Continuously monitor the carbon monoxide concentration in the combustion exhaust according to §63.7525(a).</u>
	b. <u>Correcting the data to 3 percent oxygen, and reducing the data to one-hour and daily block averages for all subcategories except units designed to burn liquid fuels located in non-continental states and territories;</u>
	c. <u>Reducing the data from the daily averages to 10-day rolling averages for all subcategories except units designed to burn liquid fuels located in non-continental states and territories;</u>
	d. <u>Reducing the data from the one-hour averages to three-hour averages for units designed to burn liquid fuels located in non-continental states and territories;</u>
	e. <u>Maintaining the 10-day rolling average carbon monoxide concentration at or below the applicable emission limit in Tables 1 or 2 of this subpart for all subcategories except units designed to burn liquid fuels located in non-continental states and territories; and</u>

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If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
	<u>f. Maintaining the 3-hour rolling average carbon monoxide concentration at or below the applicable emission limit in Tables 1 or 2 of this subpart for units designed to burn liquid fuels located in non-continental states and territories.</u>
<u>911</u> . Boiler or process heater operating load	a. Collecting operating load data or steam generation data every 15 minutes.
	<del>b. Reducing the data to 12-hour block averages; and</del>
	<del>eb.</del> <u>Maintaining the 12-hour operating load such that it does not exceed 110 percent of the average operating load at or below the operating limit established recorded during the most recent performance test according to §63.7520(c).</u>

**Table 9 to Subpart DDDDD of Part 63—Reporting Requirements**

As stated in §63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. Information required in §63.7550(c) (1) through (12); and	Semiannually, annually, <del>or</del> biennially, <u>or every 5 years</u> according to the requirements in §63.7550(b).
	b. If there are no deviations from any emission limitation (emission limit and operating	

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<b>You must submit a(n)</b>	<b>The report must contain . . .</b>	<b>You must submit the report . . .</b>
	<p>limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 3 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period.- If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and</p>	
	<p>c. If you have a deviation from any emission limitation (emission limit and operating limit) where you are not using a CMS to comply with that emission limit or operating limit, or a deviation from a work practice standard during the reporting period, the report must contain the information in §63.7550(d); and</p>	

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<b>You must submit a(n)</b>	<b>The report must contain . . .</b>	<b>You must submit the report . . .</b>
	d.- If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in §63.8(c)(7), or otherwise not operating, the report must contain the information in §63.7550(e).	

**Table 10 to Subpart DDDDD of Part 63—Applicability of General Provisions to Subpart DDDDD**

As stated in §63.7565, you must comply with the applicable General Provisions according to the following:

<b>Citation</b>	<b>Subject</b>	<b>Applies to subpart DDDDD</b>
§63.1	Applicability	Yes.
§63.2	Definitions	Yes. Additional terms defined in §63.7575
§63.3	Units and Abbreviations	Yes.
§63.4	Prohibited Activities and Circumvention	Yes.
§63.5	Preconstruction Review and Notification Requirements	Yes.

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<b>Citation</b>	<b>Subject</b>	<b>Applies to subpart DDDDD</b>
§63.6(a), (b)(1)-(b)(5), (b)(7), (c)	Compliance with Standards and Maintenance Requirements	Yes.
§63.6(e)(1)(i)	General duty to minimize emissions.	No.- See §63.7500(a)(3) for the general duty requirement.
§63.6(e)(1)(ii)	Requirement to correct malfunctions as soon as practicable.	No.
§63.6(e)(3)	Startup, shutdown, and malfunction plan requirements.	No.
§63.6(f)(1)	Startup, shutdown, and malfunction exemptions for compliance with non-opacity emission standards.	No.
§63.6(f)(2) and (3)	Compliance with non-opacity emission standards.	Yes.
§63.6(g)	Use of alternative standards	Yes.

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Citation	Subject	Applies to subpart DDDDD
§63.6(h) (1)	Startup, shutdown, and malfunction exemptions to opacity standards.	No.- See §63.7500 (a) .
§63.6(h) (2) to (h) (9)	Determining compliance with opacity emission standards	Yes.
§63.6(i)	Extension of compliance.	<del>Yes.</del> <u>Yes. Facilities may request extensions of compliance for the installation of combined heat and power or waste heat recovery as a means of complying with this subpart.</u>
§63.6(j)	Presidential exemption.	Yes.
§63.7(a), (b), (c), and (d)	Performance Testing Requirements	Yes.
§63.7(e) (1)	Conditions for conducting performance tests.	No.- Subpart DDDDD specifies conditions for conducting performance tests at §63.7520(a) <u>to (c)</u> .
§63.7(e) (2)-(e) (9), (f), (g), and (h)	Performance Testing Requirements	Yes.

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<b>Citation</b>	<b>Subject</b>	<b>Applies to subpart DDDDD</b>
§63.8(a) and (b)	Applicability and Conduct of Monitoring	Yes.
§63.8(c) (1)	Operation and maintenance of CMS	Yes.
§63.8(c) (1) (i)	General duty to minimize emissions and CMS operation	No.- See §63.7500(a) (3) .
§63.8(c) (1) (ii)	Operation and maintenance of CMS	Yes.
§63.8(c) (1) (iii)	Startup, shutdown, and malfunction plans for CMS	No.
§63.8(c) (2) to (c) (9)	Operation and maintenance of CMS	Yes.
§63.8(d) (1) and (2)	Monitoring Requirements, Quality Control Program	Yes.
§63.8(d) (3)	Written procedures for CMS	Yes, except for the last sentence, which refers to a startup, shutdown, and malfunction plan.- Startup, shutdown, and malfunction plans are not required.
§63.8(e)	Performance evaluation of a CMS	Yes.

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<b>Citation</b>	<b>Subject</b>	<b>Applies to subpart DDDDD</b>
§63.8 (f)	Use of an alternative monitoring method.	Yes.
<del>§</del> 63.8 (g)	Reduction of monitoring data.	Yes.
§63.9	Notification Requirements	Yes.
§63.10 (a), (b) (1)	Recordkeeping and Reporting Requirements	Yes.
§63.10 (b) (2) (i)	Recordkeeping of occurrence and duration of startups or shutdowns	Yes.
§63.10 (b) (2) (ii)	Recordkeeping of malfunctions	No.- See §63.7555(d) (7) for recordkeeping of occurrence and duration and §63.7555(d) (8) for actions taken during malfunctions.
§63.10 (b) (2) (iii)	Maintenance records	Yes.
§63.10 (b) (2) (iv) and (v)	Actions taken to minimize emissions during startup, shutdown, or malfunction	No.
§63.10 (b) (2) (vi)	Recordkeeping for CMS malfunctions	Yes.



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<b>Citation</b>	<b>Subject</b>	<b>Applies to subpart DDDDD</b>
§63.10(b) (2) (vii) to (xiv)	Other CMS requirements	Yes.
§63.10(b) (3)	Recordkeeping requirements for applicability determinations	No.
§63.10(c) (1) to (9)	Recordkeeping for sources with CMS	Yes.
§63.10(c) (10) and (11)	Recording nature and cause of malfunctions, and corrective actions	No.- See §63.7555(d) (7) for recordkeeping of occurrence and duration and §63.7555(d) (8) for actions taken during malfunctions.
§63.10(c) (12) and (13)	Recordkeeping for sources with CMS	Yes.
§63.10(c) (15)	Use of startup, shutdown, and malfunction plan	No.
§63.10(d) (1) and (2)	General reporting requirements	Yes.
§63.10(d) (3)	Reporting opacity or visible emission observation results	No.
§63.10(d) (4)	Progress reports under an extension of compliance	Yes.

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Citation	Subject	Applies to subpart DDDDD
§63.10 (d) (5)	Startup, shutdown, and malfunction reports	No.- See §63.7550 (c) (11) for malfunction reporting requirements.
<u>§63.10 (e)</u>	<u>Additional reporting requirements for sources with CMS</u>	<u>Yes.</u>
§63.10 ( <del>e</del> ) and ( <del>f</del> )	<u>Waiver of recordkeeping or reporting requirements</u>	Yes.
§63.11	Control Device Requirements	No.
§63.12	State Authority and Delegation	Yes.
§63.13-63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§63.1 (a) (5), (a) (7) - (a) (9), (b) (2), (c) (3) - (4), (d), 63.6 (b) (6), (c) (3), (c) (4), (d), (e) (2), (e) (3) (ii), (h) (3), (h) (5) (iv), 63.8 (a) (3), 63.9 (b) (3), (h) (4), 63.10 (c) (2) - (4), (c) (9).	Reserved	No.

~~Table 11 to Subpart DDDDD of Part 63 Toxic Equivalency Factors  
for Dioxins/Furans~~

<del>Dioxin/furan congener</del>	<del>Toxic equivalency factor</del>
<del>2,3,7,8-tetrachlorinated dibenzo-p-dioxin</del>	<del>1</del>
<del>1,2,3,7,8-pentachlorinated dibenzo-p-dioxin</del>	<del>0.5</del>
<del>1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin</del>	<del>0.1</del>
<del>1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin</del>	<del>0.1</del>
<del>1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin</del>	<del>0.1</del>
<del>1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin</del>	<del>0.01</del>
<del>octachlorinated dibenzo-p-dioxin</del>	<del>0.001</del>
<del>2,3,7,8-tetrachlorinated dibenzofuran</del>	<del>0.1</del>
<del>2,3,4,7,8-pentachlorinated dibenzofuran</del>	<del>0.5</del>
<del>1,2,3,7,8-pentachlorinated dibenzofuran</del>	<del>0.05</del>
<del>1,2,3,4,7,8-hexachlorinated dibenzofuran</del>	<del>0.1</del>
<del>1,2,3,6,7,8-hexachlorinated dibenzofuran</del>	<del>0.1</del>
<del>1,2,3,7,8,9-hexachlorinated dibenzofuran</del>	<del>0.1</del>
<del>2,3,4,6,7,8-hexachlorinated dibenzofuran</del>	<del>0.1</del>
<del>1,2,3,4,6,7,8-heptachlorinated dibenzofuran</del>	<del>0.01</del>
<del>1,2,3,4,7,8,9-heptachlorinated dibenzofuran</del>	<del>0.01</del>
<del>octachlorinated dibenzofuran</del>	<del>0.001</del>

~~Table 12 to Subpart DDDDD of Part 63 Alternative Emission Limits  
for New or Reconstructed Boilers and Process Heaters That  
Commenced Construction or Reconstruction After June 4, 2010, and  
Before [INSERT THE DATE 60 DAYS AFTER THIS FINAL RULE IS  
PUBLISHED IN THE FEDERAL REGISTER]~~

<del>If your boiler or process heater is in this subcategory ...</del>	<del>For the following pollutants ...</del>	<del>The emissions must not exceed the following emission limits, except during periods of startup and shutdown...</del>	<del>Using this specified sampling volume or test run duration...</del>
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<b>If your boiler or process heater is in this subcategory ...</b>	<b>For the following pollutants ...</b>	<b>The emissions must not exceed the following emission limits, except during periods of startup and shutdown...</b>	<b>Using this specified sampling volume or test run duration...</b>
1. Units in all subcategories designed to burn solid fuel	a. Mercury	3.5E-06 lb per MMBtu of heat input.	For M29, collect a minimum of 2 dsem per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 <sup>a</sup> collect a minimum of 2 dsem.
2. Units in all subcategories designed to burn solid fuel that combust at least 10 percent biomass/bio-based solids on an annual heat input basis and less than 10 percent coal/solid fossil fuels on an annual heat input basis.	a. Particulate Matter	0.008 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).	Collect a minimum of 1 dsem per run.
	b. Hydrogen Chloride	0.004 lb per MMBtu of heat input.	For M26A, collect a minimum of 1 dsem per run; for M26, collect a minimum of 60 liters per run.
3. Units in all subcategories designed to burn solid fuel that combust at least 10 percent coal/solid fossil fuels on an annual heat input basis and less than 10 percent biomass/bio-based solids on an annual heat input basis.	a. Particulate Matter	0.0011 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).	Collect a minimum of 3 dsem per run.

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<b><del>If your boiler or process heater is in this subcategory ...</del></b>	<b><del>For the following pollutants ...</del></b>	<b><del>The emissions must not exceed the following emission limits, except during periods of startup and shutdown...</del></b>	<b><del>Using this specified sampling volume or test run duration...</del></b>
	b. Hydrogen Chloride	0.0022 lb per MMBtu of heat input.	For M26A, collect a minimum of 1 dsem per run; for M26, collect a minimum of 60 liters per run.
<del>4. Units designed to burn pulverized coal/solid fossil fuel</del>	a. CO	90 ppm by volume on a dry basis corrected to 3 percent oxygen.	1-hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.
<del>5. Stokers designed to burn coal/solid fossil fuel</del>	a. CO	7 ppm by volume on a dry basis corrected to 3 percent oxygen.	1-hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.
<del>6. Fluidized bed units designed to burn coal/solid fossil fuel</del>	a. CO	30 ppm by volume on a dry basis corrected to 3 percent oxygen.	1-hr minimum sampling time.
	b. Dioxins/Furans	0.002 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.
<del>7. Stokers designed to burn biomass/bio-based solids</del>	a. CO	560 ppm by volume on a dry basis corrected to 3 percent oxygen.	1-hr minimum sampling time.
	b. Dioxins/Furans	0.005 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.

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<b>If your boiler or process heater is in this subcategory ...</b>	<b>For the following pollutants ...</b>	<b>The emissions must not exceed the following emission limits, except during periods of startup and shutdown...</b>	<b>Using this specified sampling volume or test run duration...</b>
8. Fluidized bed units designed to burn biomass/bio-based solids	a. CO	260 ppm by volume on a dry basis corrected to 3 percent oxygen.	1-hr minimum sampling time.
	b. Dioxins/Furans	0.02 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.
9. Suspension burners/Dutch Ovens designed to burn biomass/bio-based solids	a. CO	1,010 ppm by volume on a dry basis corrected to 3 percent oxygen.	1-hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.
10. Fuel cells designed to burn biomass/bio-based solids	a. CO	470 ppm by volume on a dry basis corrected to 3 percent oxygen.	1-hr minimum sampling time.
	b. Dioxins/Furans	0.003 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.
11. Hybrid suspension/grate units designed to burn biomass/bio-based solids	a. CO	1,500 ppm by volume on a dry basis corrected to 3 percent oxygen.	1-hr minimum sampling time.
	b. Dioxins/Furans	0.2 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.

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If your boiler or process heater is in this subcategory ...	For the following pollutants ...	The emissions must not exceed the following emission limits, except during periods of startup and shutdown...	Using this specified sampling volume or test run duration...
12. Units designed to burn liquid fuel	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).	Collect a minimum of 2 dsem per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input.	For M26A, collect a minimum of 1 dsem per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	3.0E-07 lb per MMBtu of heat input.	For M29, collect a minimum of 2 dsem per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 <sup>a</sup> collect a minimum of 2 dsem.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.

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<b>If your boiler or process heater is in this subcategory ...</b>	<b>For the following pollutants ...</b>	<b>The emissions must not exceed the following emission limits, except during periods of startup and shutdown...</b>	<b>Using this specified sampling volume or test run duration...</b>
13. Units designed to burn liquid fuel located in non-continental States and territories	a. Particulate Matter	0.002 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).	Collect a minimum of 2 dsem per run.
	b. Hydrogen Chloride	0.0032 lb per MMBtu of heat input.	For M26A, collect a minimum of 1 dsem per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.8E-07 lb per MMBtu of heat input.	For M29, collect a minimum of 1 dsem per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 <sup>a</sup> collect a minimum of 2 dsem.
	d. CO	51 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	e. Dioxins/Furans	0.002 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.



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<b>If your boiler or process heater is in this subcategory ...</b>	<b>For the following pollutants ...</b>	<b>The emissions must not exceed the following emission limits, except during periods of startup and shutdown...</b>	<b>Using this specified sampling volume or test run duration...</b>
14. Units designed to burn gas 2 (other) gases	a. Particulate Matter	0.0067 lb per MMBtu of heat input (30-day rolling average for units 250 MMBtu/hr or greater, 3-run average for units less than 250 MMBtu/hr).	Collect a minimum of 1 dsem per run.
	b. Hydrogen Chloride	0.0017 lb per MMBtu of heat input.	For M26A, collect a minimum of 1 dsem per run; for M26, collect a minimum of 60 liters per run.
	c. Mercury	7.9E-06 lb per MMBtu of heat input.	For M29, collect a minimum of 1 dsem per run; for M30A or M30B, collect a minimum sample as specified in the method; for ASTM D6784 <sup>a</sup> collect a minimum of 2 dsem.
	d. CO	3 ppm by volume on a dry basis corrected to 3 percent oxygen.	1 hr minimum sampling time.
	e. Dioxins/Furans	0.08 ng/dsem (TEQ) corrected to 7 percent oxygen.	Collect a minimum of 4 dsem per run.

<sup>a</sup> Incorporated by reference, see §63.14.